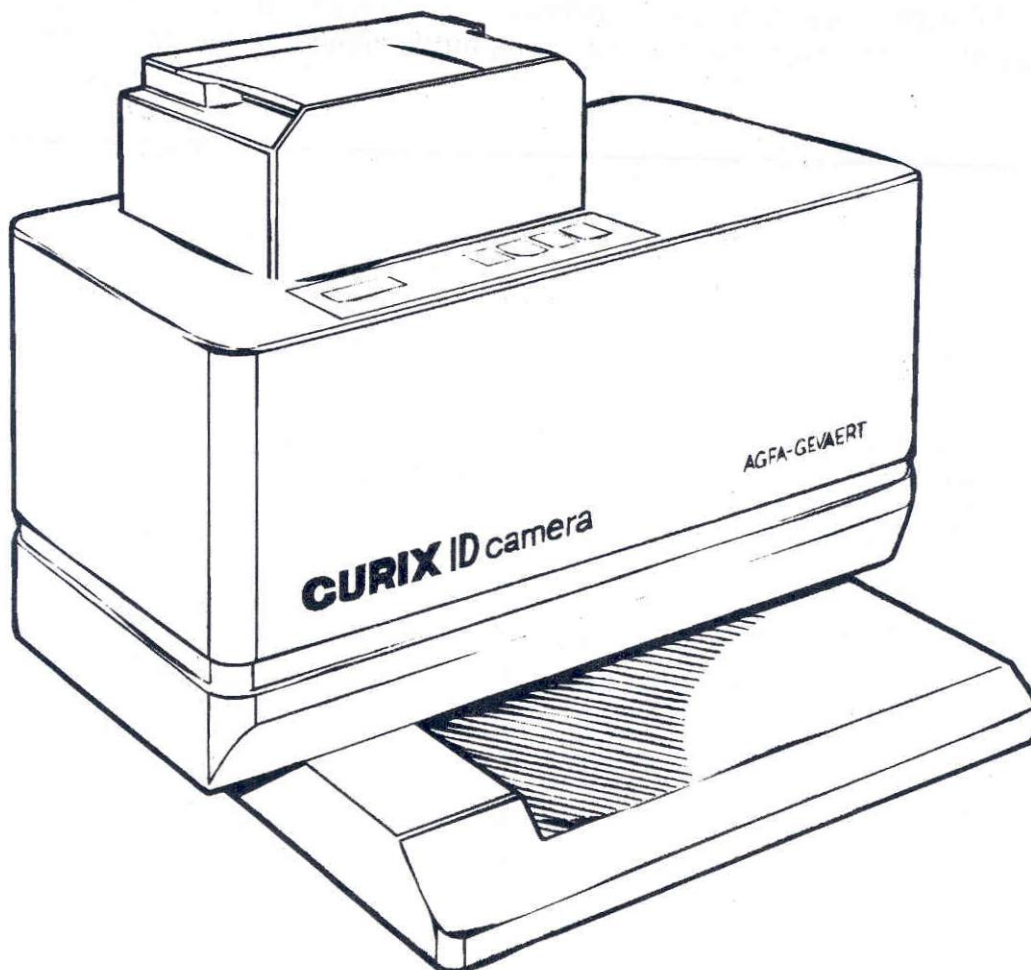


CURIX ID Camera

Order No.: DD+DIS065.92E

Technical Documentation

Type 8400/300/340/350



Version 1

0.	Document ordering index Documentation checklist
1.	Installation planning
2.	Installation and initial operation
3.	Interfaces and controls
4.	Operating instructions
5.	Functions
6.	Repair and maintenance
6.1.	Notes on safety Removing the exterior panels
6.2.	Troubleshooting / tips for repair
6.3.	Service indications / error catalog
6.4.	Component layouts - device and modules
6.5.	General circuit diagram / fuses, voltages
6.6.	Service programs *
6.7.	Tools, auxiliaries and test equipment *
6.8.	Maintenance checklist
6.9.	Technical modifications in series production *
6.10.	Modules
7.	Spare parts list
8.	Options *
9.	Customization *
10.	Device modules *
11.	Field-service bulletin Technical information
12.	Glossary *
13.	Training documentation *
14.	Notes



6.10.1	Modules - mechanical design
6.10.2	Repair and adjustment (mechanical)
6.10.3	Repair, test points and adjustment (electrical)
6.10.4	Repair and adjustment (optical)

* = Technically not applicable

652501 2685152

**German RFI Declaration
For class B self-certification**

This is to certify that this device, the

CURIX ID camera

is RFI-suppressed in accordance with the requirements of EN 55022 Directive 243, 1991, CISPR.

The German PTT Authorities have been notified that this device has been introduced onto the market and has been empowered to inspect series production for compliance with the above directive.

AGFA-GEVAERT AG
Service Support International - Diagnostic Imaging Systems
Tegernseer Landstr. 161

D-8000 München 90
Federal Republic of Germany

Orders for spare parts: Tel.: xx49 - (0)89 - 6207 - 3760
 Fax.: xx49 - (0)89 - 6207 - 7455

Orders for documentation: Tel.: xx49 - (0)89 - 6207 - 3553
 Fax.: xx49 - (0)89 - 6207 - 7515



Contents

Note: Only trained, qualified electricians can carry out electrical repairs.

Only trained, qualified technicians can carry out mechanical repairs.

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Contents

Note: Only trained, qualified electricians can carry out electrical repairs.

Only trained, qualified technicians can carry out mechanical repairs.

Order list for the ID camera documentation, type 8400/300/340/350

Please file this order list behind the cover sheet and in front of chapter 1. By these order numbers a complete set of documentation can be ordered.

Order number	Issue date	Titel	Type	Chapter
DD+DIS064.92E	09/92	Installation planning	1. edition	1
DD+DIS065.92E	09/92	Technical documentation in folder	1. edition	0, 2 to 6, 8 to 14 Cover sheet Order list
DD+DIS096.92E	12/92	Service and status messages, error catalogue	2. edition	Order list, 6.3
DD+DIS027.93M	05/93	Spare parts list	1st edition	Order list, 7

Checklist for completeness of the ID camera documentation, type 8400/300/340/350

Please file the checklist for completeness behind the cover sheet and the order list and in front of **chapter 1**. By this checklist completeness of the available documentation folder can be checked.

Chapter	Pages	Issue data	Order number	Remarks
0	4	9/92	DD+DIS027.93M	Order list and checklist for completeness
1	4	9/92	DD+DIS064.92E	Installation planning
2	6	9/92	DD+DIS065.92E	
3	3	9/92	DD+DIS065.92E	
4	2			Separately available (not yet released)
5	7	9/92	DD+DIS065.92E	
6	1	9/92	DD+DIS065.92E	
6.1	3	9/92	DD+DIS065.92E	
6.2	2	9/92	DD+DIS065.92E	
6.3	4	12/92	DD+DIS096.92E	2. edition
6.4	9	9/92	DD+DIS065.92E	
6.5	6	9/92	DD+DIS065.92E	
6.6				At the time technically not applicable
6.7				At the time technically not applicable
6.8				At the time technically not applicable
6.9				At the time technically not applicable
6.10	20	9/92	DD+DIS065.92E	
7	18	5/93	DD+DIS027.93M	Spare parts list
8	1			At the time technically not applicable
9	1			At the time technically not applicable
10	1			At the time technically not applicable
11	1			At the time technically not applicable
12	1			At the time technically not applicable
13	1			At the time technically not applicable
14	1			At the time technically not applicable

Chapter 1

Installation Planning Technical Data and Installation Instructions

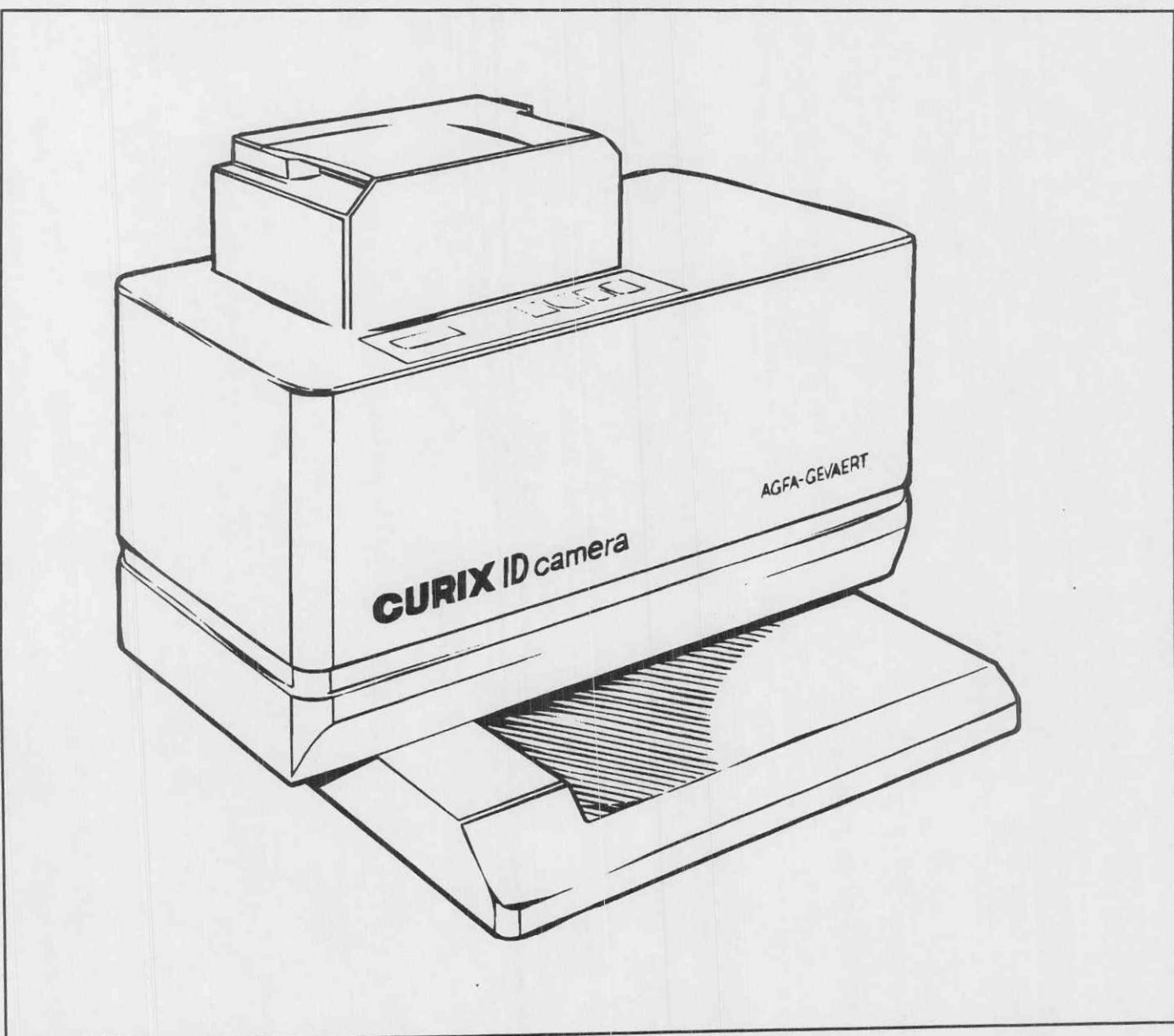
Chapter 1 contains all the planning data for installation plus all the measures that must be implemented on site before the device is delivered in order to streamline installation (see Chapter 2).

Order No.: DD+DIS064.92E

September 1992

CURIX ID Camera
Type 8400/300/340/350

INSTALLATION PLANNING
Technical Data and Installation Instructions



Version 1

The Installation Planning is available separately.
Order No. DD+DIS064.92E

Chapter 1: Installation Planning
Technical Data and Installation Instructions

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SAFETY REQUIREMENTS.....	2

SHEET 1

PLANNING

No structural changes to the installation room are necessary.

A separate, readily accessible grounded socket outlet is required for the power supply.

A strong, level worktop must be available for the device (see Technical Data for sizes).

SCOPE OF DELIVERY and ACCESSORIES

Device	Type No./Order No.	ABC code
ID camera	8400/300	3DQ7S
ID camera	8400/340	3DQ6Q
ID camera	8400/350	3DQ5O

TECHNICAL DATA

SIZES and WEIGHT:

Dimensions:	Width	33 cm
	Length (Depth)	40 cm
	Height	34 cm
Weight:		10.5 kg

GENERAL TECHNICAL DATA

Electrical connection:	Power cable for connection to grounded socket outlet; usable length, 1 m		
Line voltage [V]:	Type 8400/300:	230 / 240	(Japan: changeable in the machine)
	Type 8400/340:	120 / 100	
	Type 8400/350:	230 / 240	
Line frequency [Hz]:	Type 8400/300:	50 / 60	
	Type 8400/340:	50 / 60	
	Type 8400/350:	50 / 60	
Power consumption [W]	Type 8400/300:	100 (0.5 A)	
	Type 8400/340:	100 (1 A)	
	Type 8400/350:	100 (0.5 A)	

SHEET 2

Fuse [A]	Type 8400/300:	300 mA
	Type 8400/340:	500 mA
	Type 8400/350:	300 mA
Function cycle (exposure of patient data):	2 seconds	
ID card size (standard computer card)	82.6 x 140 mm	
Card thickness	min. 0.2 mm	
	max. 0.5 mm	
Window for exposure	72 x 19 mm	(Type 300)
	72 x 31.75 mm	(Type 340/350)
Ambient temperature	10 to 40° C	
Relative humidity	10 to 70%	

SAFETY REQUIREMENTS

Installation requirements: The electrical facilities in the installation room must comply with IEC 364 (VDE 0100).

When installing the device, bear in mind that either the power plug/device switch or a device to isolate all the poles and incorporated in the building's power supply network must be readily accessible in the immediate vicinity of the device.

The CURIX ID camera fulfills the safety requirements of VDE, UL and CSA.

RFI suppression: EN 55022/Directive 243, 1991, B
CISPR 22, 1990, B

Approvals: GS
UL
CSA

Chapter 2

Installation and Initial Operation

All the steps required to make the device operational, i.e. from unpacking to handover to the customer, are described in chronological order in Chapter 2.

The description consists of two parts:

- Installation = Steps from unpacking up to and including on-site installation of the machine**
- Initial operation = Steps from switching on until the finished product is handed over to the customer (setting operational parameters).**

Chapter 2: Installation and Initial Operation

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1. Installation.....	1
1.1 Preparations for installation	1
1.2 Unpacking.....	1
2. Initial operation	3
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2.2 Switching on	3
2.3 Automatic zeroing of the AP / PA photoelectric barriers	3
2.4 Setting the exposure time	4
2.5 Selecting daylight saving time / standard time	4

1. Installation

1.1 Preparations for installation

Make sure that all the tasks described in Chapter 1 "Installation Planning" are completed before the device is delivered to site.

The freight forwarder must transport the device to its final location. The person responsible for installation must be present at all times.

1.2 Unpacking

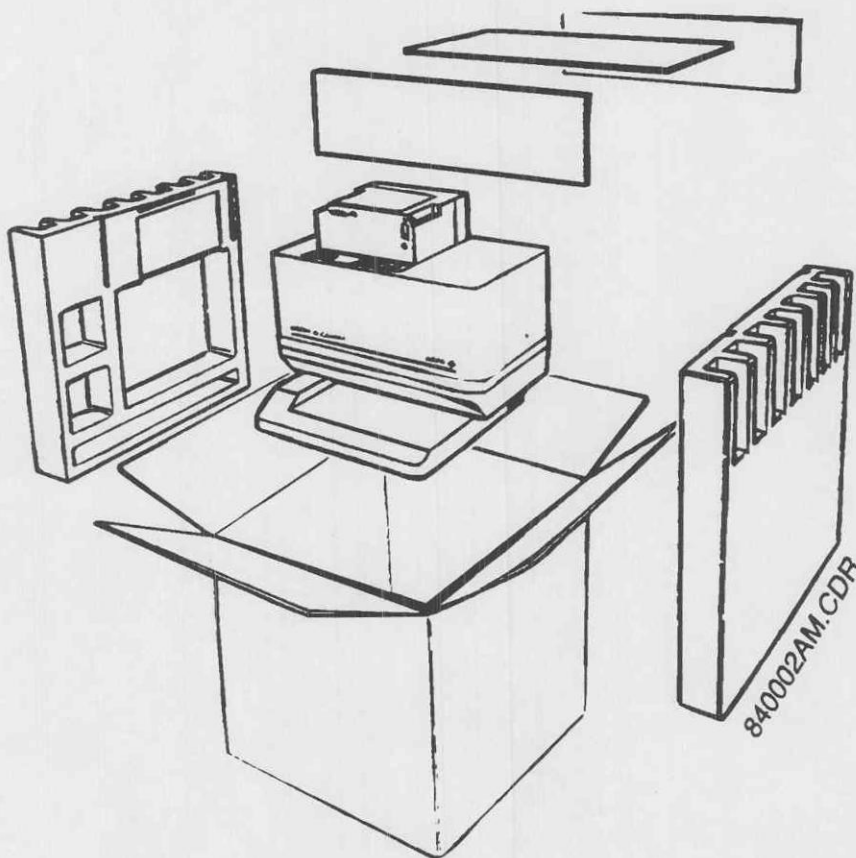
- Check the label on the box:

Compare the CURIX ID camera type number and ABC code with the customer's order and the delivery note.

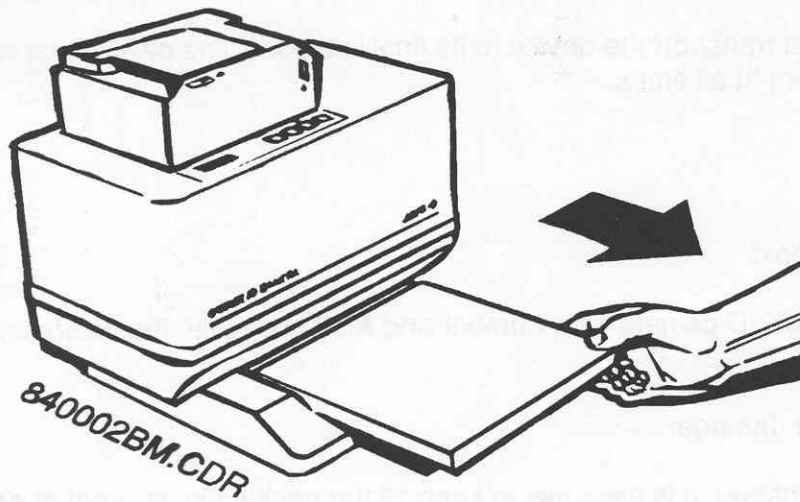
- Check the packaging for damage:

If the device is damaged, it is essential to keep all the packaging as proof of damage in transit (so that an insurance claim can be filed).

- Unpack the device:



The device is packed in a cardboard box with polystyrene inserts. Remove all the packaging material and check the device for external, visible damage.



NOTE: If the device is supplied for demonstration purposes, be sure to keep all the original packaging; in order to minimize the risk of damage in transit, the device must be repacked in its original packaging for return.



2. Initial operation

Check that the device's intended location is in the immediate vicinity of a correctly grounded, readily accessible socket outlet.

2.1 Setting the voltage selector switch and the line frequency

NOTE: Before connecting the device, it is essential to check that the works voltage setting (see rating plate) matches the AC mains voltage.

It is not necessary to adjust the frequency.

2.2 Switching on

NOTE: The device does not have an on/off switch (power switch).

CAUTION: Before switching on for the first time, make sure that there is no ID card (AP or PA) in the device, as the presence of a card would interfere with the automatic initialization process (photoelectric barrier zeroing, see Section 2.3), in other words the measured values would be falsified.

- a Press the Ramp button (see Chapter 3 "Controls"), hold it down and plug the power cable into the grounded socket outlet.
- b Hold the Ramp button down until "1dMY" appears in the display.

NOTE: This process is known as the cold-start routine and it has the same effect as pressing the Reset button featured by older devices.

- c Select the date display mode (see Chapter 4 "Operating Instructions").
- d Set the year (see Chapter 4 "Operating Instructions").
- e Set the month (see Chapter 4 "Operating Instructions").
- f Set the day (see Chapter 4 "Operating Instructions").
- g Set the time of day (see Chapter 4 "Operating Instructions").

NOTE: Once you set the time of day, the device must start the "Automatic zeroing of the AP / PA photoelectric barriers" routine.

2.3 Automatic zeroing of the AP / PA photoelectric barriers

The words "no card" flash in the display to indicate that this routine is in progress. Do not attempt to insert an ID card before this message disappears.

NOTE: The automatic photoelectric-barrier zeroing routine cannot be interrupted (buttons are disabled).

After approximately 4 seconds ("no card" flashes four times), the display changes to "—", indicating that the parameterization routine has been started. This routine takes approximately 20 seconds, during which time the letters PA followed by the decimal value and AP followed by the decimal value appear on the display.

Once the photoelectric barriers have been zeroed (barriers PA and AP), the time of day reappears on the display, indicating that the device is now in the normal operating mode.

2.4 Setting the exposure time

The default exposure time is "t3". This exposure time can be changed to suit the type of film used (see Chapter 4 "Operating Instructions").

NOTE: On account of the low supply voltage (100 V), the Japanese-specification devices require a longer exposure time.

2.5 Selecting daylight saving time / standard time

The device can be set for daylight saving time (summer time) or standard time (winter time) (see Chapter 4 "Operating Instructions").

NOTE: The time can be changed only once per year. The standard time (winter time) mode cannot be selected unless the daylight saving time (summer time) mode was selected beforehand.

Chapter 3

Interfaces and Controls

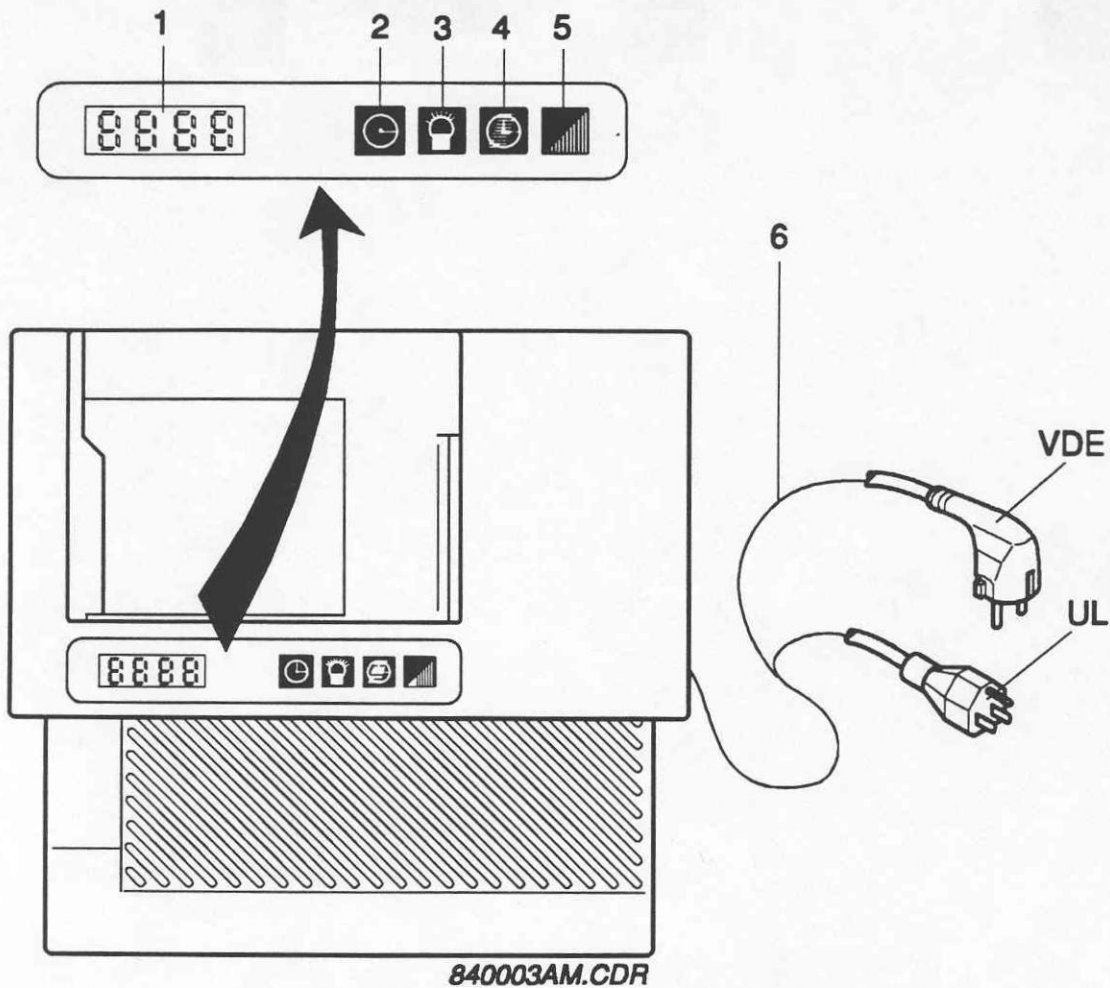
Chapter 3 describes the functions and positions of all the internal and external interfaces and controls in the form of sketches and brief explanatory notes including explanations of any alternative interface arrangements.

Chapter 3: Interfaces and Controls

Contents

1. Interfaces and controls	1
---	----------

1. Interfaces and controls



- 1 Liquid-crystal display, 4 characters (external indication)
- 2 Touch-sensitive button for date and time of day (external indication)
- 3 Touch-sensitive button, exposure time (external indication)
- 4 Touch-sensitive button, insert/suppress time of day (internal indication)
- 5 Touch-sensitive button, time of day, date and exposure time
- 6 Power cable (VDE or UL)

NOTE: The device does not have an on/off switch (power switch).

Chapter 4

Operating Instructions

Chapter 4 contains the official operating instructions.

Note: During familiarization, expressly draw the customer's attention to any notes on self-help in the operating instructions.

Chapter 5: Functions

Contents

1. Description of function	1
1.1 Imaging	1
2. Brief description of the optical imaging process.....	3
3. Functional sequence.....	5
4. Main functions of the controller card:	5

Chapter 5

Functions

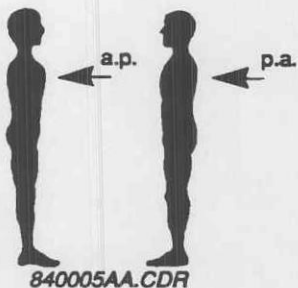
Chapter 5 describes a model functional cycle.

Chapter 5 also includes general explanatory notes on device-specific technologies (functional principles).

1. Description of function

1.1 Imaging

European version: Type 300

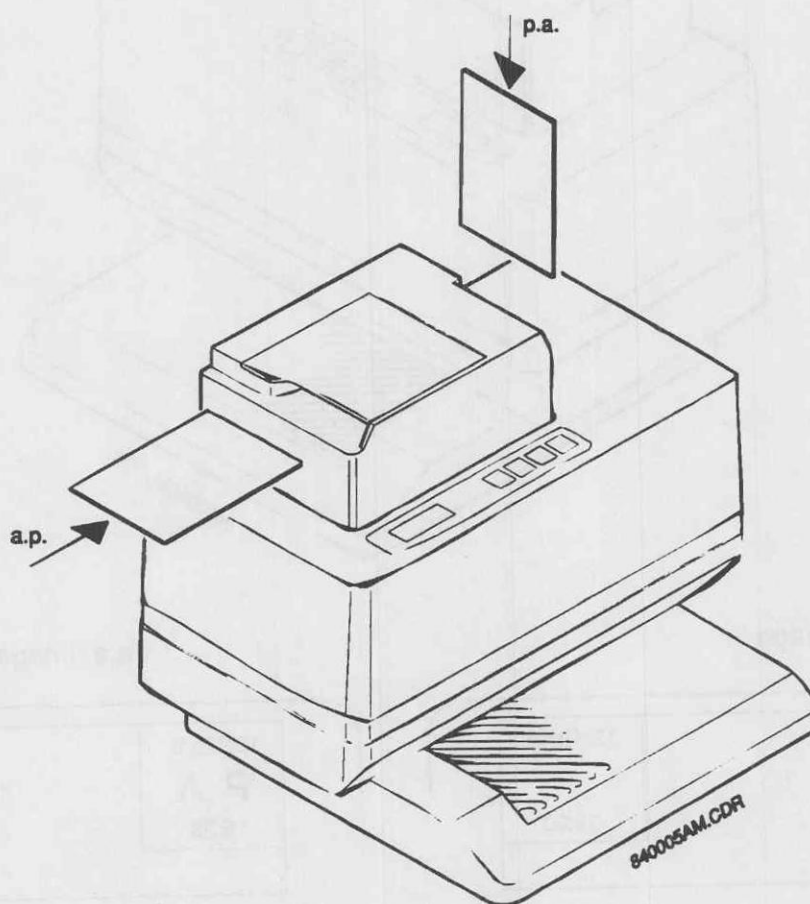


a.p. = anterior-posterior

Imaging direction
from the front (pectoral)
to the rear (dorsal)

p.a = posterior-anterior

Imaging direction
from the rear (dorsal)
to the front (pectoral)



p.a. image

12:12:00	1
P A	
15:35	

a.p. image

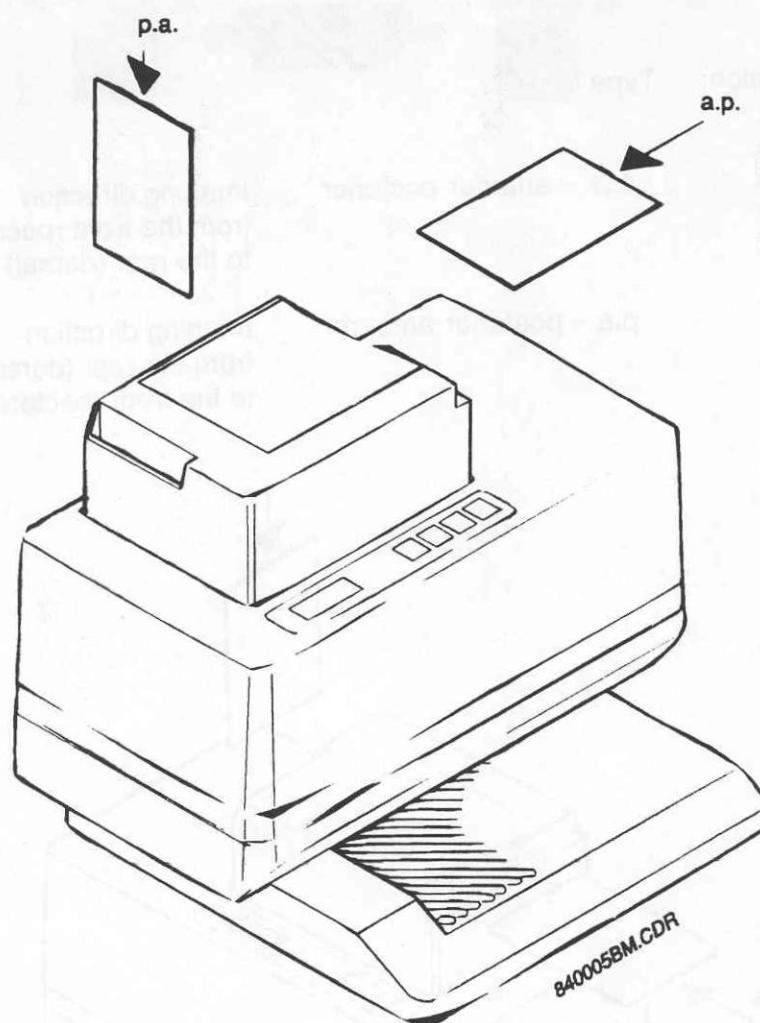
1	12:12:00
	15:35

small data field: 72 x 19 mm
(1 = patient data)

840005AB.CDR

US version

Type 340/350



a.p. image

p.a. image

1	12:12:00
	15:35

12:12:00	1
PA 15:35	

840005AC.CDR

large data field: 72 x 31.75 mm
(1 = patient data)

2. Brief description of the optical imaging process

The image of the clock display illuminated by bulb A is diverted by the mirror and directed onto the film by the lens (see Fig. 1).

In an a.p. image, the ID card is illuminated by the light from bulb B deflected off and passing through the semi-transparent mirror and directed onto the film by the lens (see Fig. 2).

In a p.a. image, the ID card is illuminated by the light from bulb B passing through the semi-transparent mirror and directed onto the film by the mirror and the lens (see Fig. 3).

Fig. 1

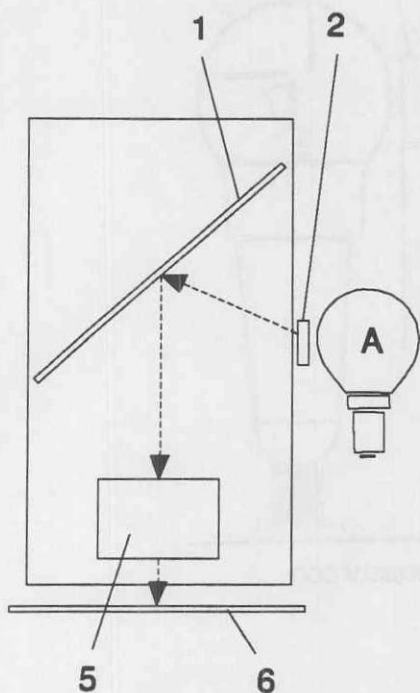


Fig. 2

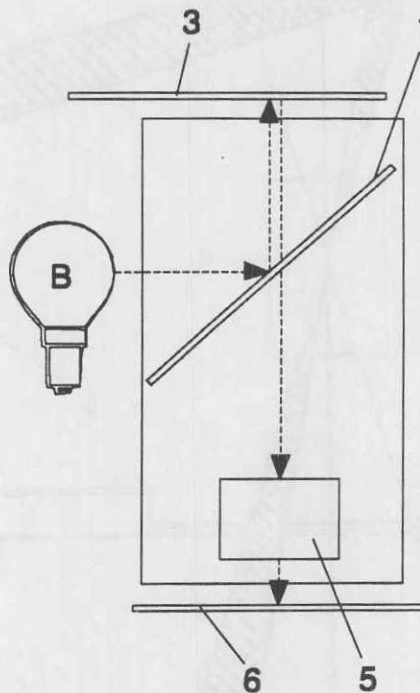
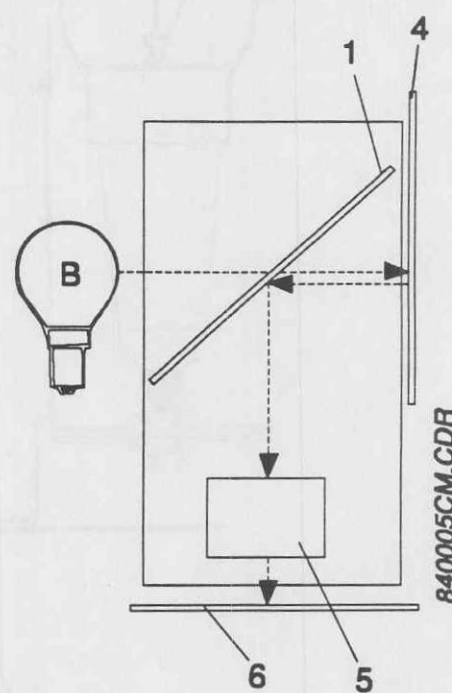
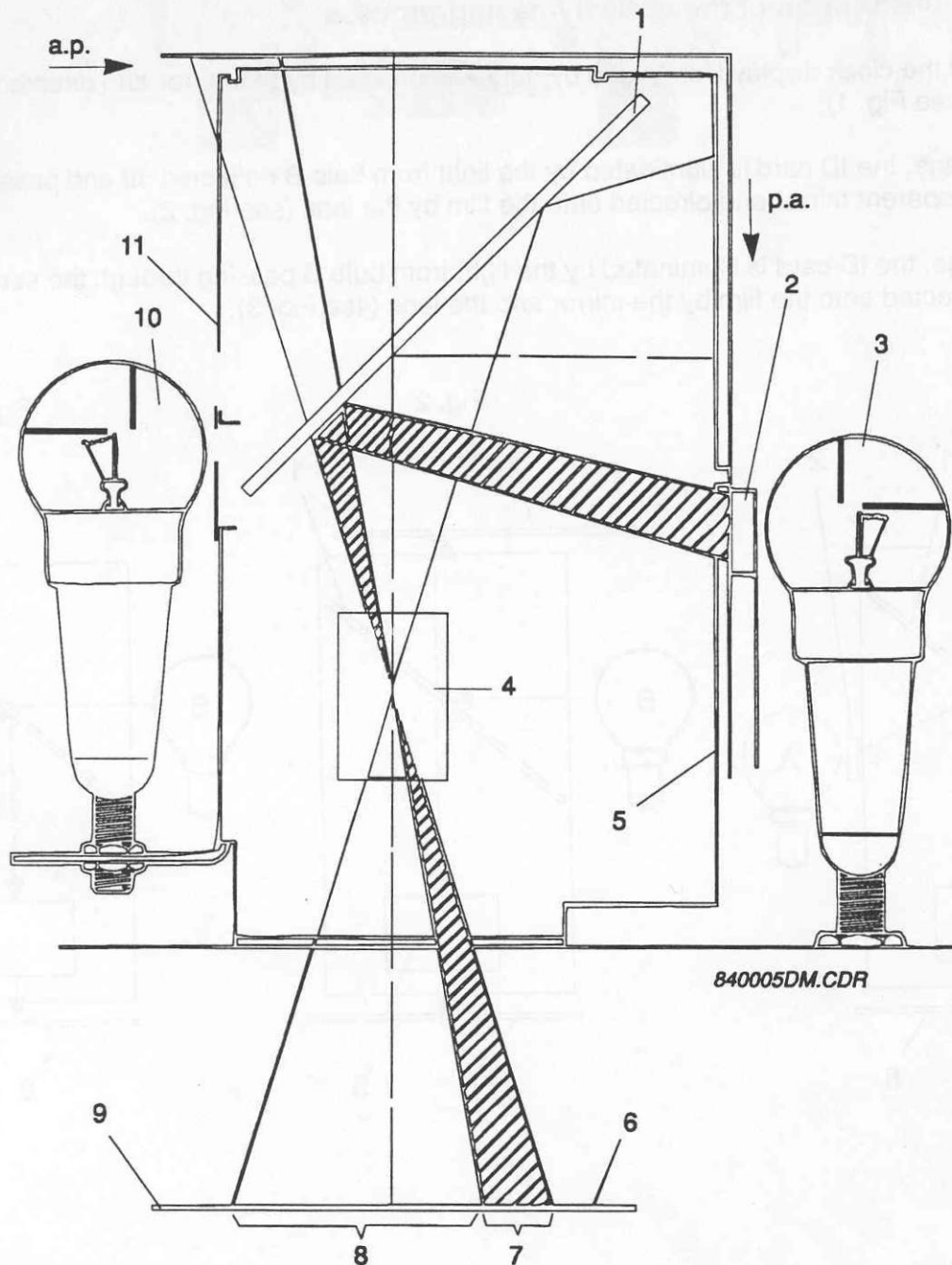


Fig. 3



- 1 Mirror
- 2 Clock display
- 3 ID card, a.p.
- 4 ID card, p.a.
- 5 Lens
- 6 Film



- 1 Mirror (semi-transparent)
- 2 Clock display
- 3 Bulb A (clock display)
- 4 Lens
- 5 Mirror slot
- 6 Exposure plane (film)
- 7 Clock data
- 8 Patient data
- 9 Cassette
- 10 Bulb B (illuminates ID card)
- 11 Shutter

3. Functional sequence

When AC voltage is applied, a reset pulse sets the microprocessor to the start of the program.

If the motor is not in the idle position, it is started and moves to the idle position.

When the operator plugs the device into the AC power supply, four flashing zeros appear in the display, prompting him or her to define the date format and to enter the current date and time of day (see Chapter 4, "Operating Instructions").

NOTE: If the device was initialized beforehand, in other words the time of day and date have already been set, the four flashing zeros disappear after approx. 2 seconds and are replaced by the current time.

The camera can also be operated without setting the date.

An ID card must be inserted before a cassette can be exposed. In other words, the card must interrupt a photoelectric barrier. The cassette is not exposed if neither or both photoelectric barriers are interrupted.

If a cassette is correctly inserted (i.e. the two outer photoelectric barriers (MC1 and MC3) for cassette detection are interrupted, but the photoelectric barrier in the middle (MC2) is not), the motor starts in the forward direction, thus opening the cassette window.

If the ID card is withdrawn before the exposure position is reached, the film is not exposed, the cassette window closes and an acoustic signal sounds. This signal does not cease until the cassette is removed.

Under normal operating conditions, the film is exposed twice once the exposure position is reached (cassette window open). The light source for the first exposure is bulb B (patient data), while the source for the second exposure is bulb A (clock display). The cassette window closes after the second exposure, i.e. the motor returns to its idle position and stops.

If the microswitch (cassette jam detector) trips while the motor is in operation, either because the cassette window is jammed or because the cassette is loose, the motor is stopped, its direction of rotation reverses and it returns to the idle position. An acoustic signal sounds and does not cease until the cassette is removed.

4. Main functions of the controller card:

- Rectifies the 9 V~ supply voltage to yield the +5 V operating voltage for ICs
- Rectifies the 20 V~ supply voltage to yield the +24 V operating voltage for the motor
- Processes the incoming signals (controls, photoelectric barriers, etc.)
- Drives the loads in response to the input signals
- Drives the clock module

6.1 Notes on safety/removing the exterior panels



6.2 Troubleshooting/tips for repair



6.3 Service indications/error catalog



6.4 Component layout: complete device and modules



6.5 Circuit diagram/fuses/voltages/coding switches



6.6 Service programs



6.7 Tools/auxiliaries and test equipment



6.8 Maintenance checklist



6.9 Technical modifications in series production
List of all available modifications



**Chapter 6.1: Notes on Safety
Removing the Exterior Panels**

Contents

1. Notes on safety..... 1

1.1 Visual inspection 1

1.2 Safety notes for installation 1

2. Removing the exterior panels 2

1. Notes on safety

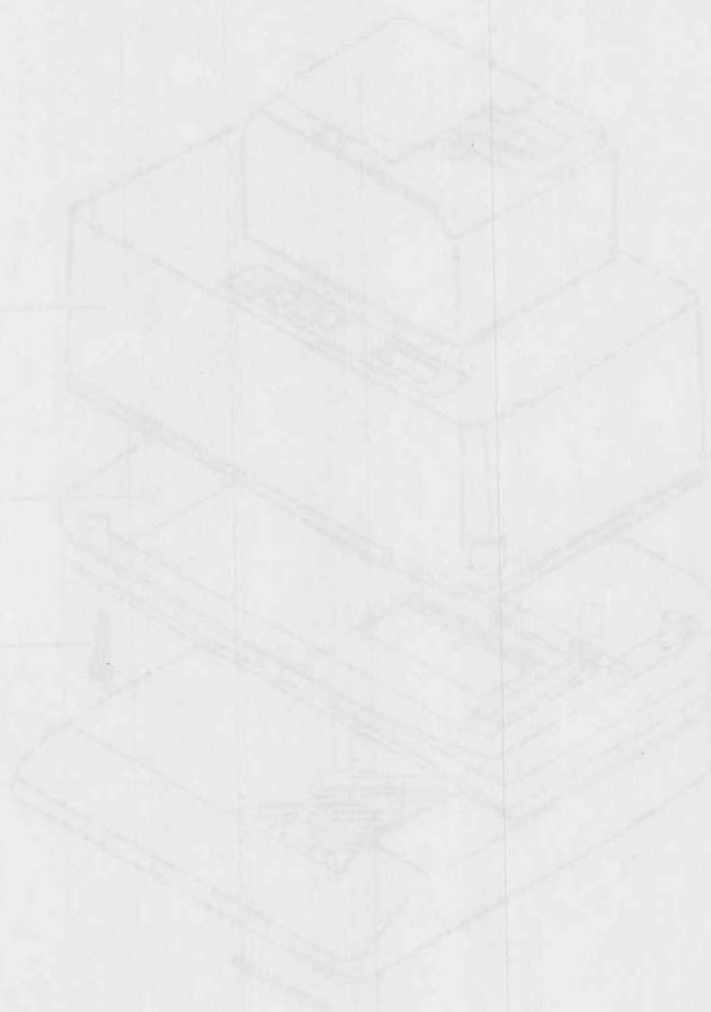
1.1 Visual inspection

Every time a repair is carried out, visually inspect the device as follows:

- Check the condition of the insulators for the power cable and plug
- Check that the strain relief device on the power cable is in good condition

1.2 Safety notes for installation

When installing the device, make sure that the socket outlet for the power cable is readily accessible and is close to the device.



2. Removing the exterior panels

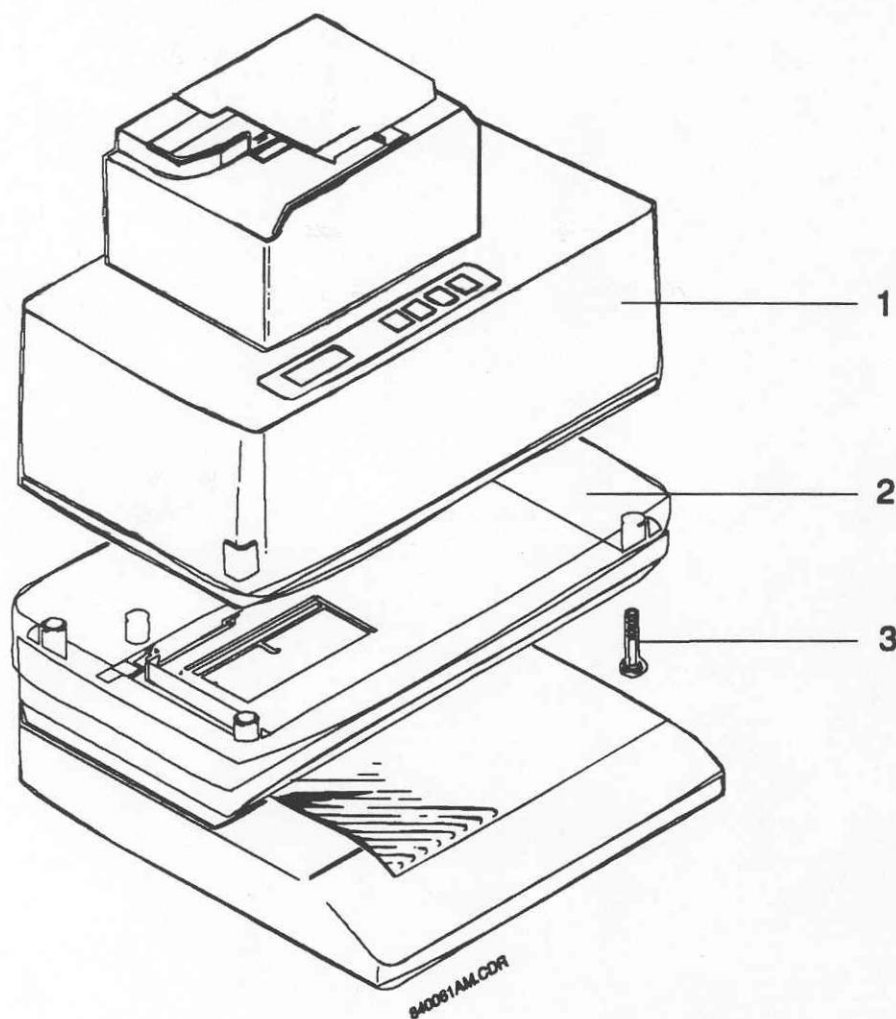
IMPORTANT: Make sure that the device is isolated from the power supply before removing the panels (unplug the power cable from the socket outlet).

Fig. 1 below shows how to remove the panel (upper housing).

- a Tilt the ID camera 90° until it is on its back (in this position, the securing screws are accessible).
- b Remove the four screws (3) in the base of the housing (2).
- c Turn the device right way up and carefully remove the upper housing (1).

IMPORTANT: Take care not to damage the cable for the display (outside) and the cable to the thermal cutout for bulb A (clock data).

Fig. 1



840061AM.COR

**Chapter 6.2: Troubleshooting
Tips for Repair**

Contents

1. Troubleshooting and tips for repair 1

1. Troubleshooting and tips for repair

Troubleshooting and user support are not implemented as device functions.

If malfunctions occur, refer to the error catalog (see Chapter 6.3) or the notes for adjustment and repair (see Chapter 6.10), as applicable.

Chapter 6.3: Service and Status Messages Error Catalogue

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2.1.10 Motor 5.M1 without function, failure of the power supply 24V	4

1. Service and status messages

Status messages of the machine appear on the 4-digit LCD (see chapter 3, "Machine connections and controls").

Display message	Meaning
ldMY	Setup function date display 1: day - month - year
2YMd	Setup function date display 2: year - month - day
3MdY	Setup function date display 3: month - day - year
Yr	Setup function for the current year
Mo	Setup function for the current month
dY	Setup function for the current day
hr	Setup function for the current hour
M	Setup function for the current minute
t0	Setup function for the exposure time (density degree of the film)
.	Adjustment range: t0 to t9
t9	Factory setting = t3

The setup routine for the clock data (date, time) and the exposure time (degree of density) is explained in detail in chapter 4 "Operating instructions"

2. Error catalogue

2.1 Possible errors and their causes

Symptoms

2.1.1 Display "- - -" fails to appear when a cassette is inserted, there is no exposure

Causes:

- ID board not fully pushed in, or two ID boards inserted
- ID board too thin, light transmission from the light barrier
- Light barrier 8MC1 or 8MC2 defective
- Cassette incorrectly inserted or wrong cassette has been used
- Cassette detection 1.GS1 out of adjustment or defective.
- External light on the AP-PA light barriers

Remedies:

- Insert only one ID board up to the stop.
 - The thickness of the ID board should be 0.2 - 0.5 mm (see chapter 1 "Specifications")
 - Replace the light barrier
 - Only insert Curix cassettes with mechanical window on the top left-hand side
 - Mount both cover caps on the board holder
- Adjustment of the cassette detection (see chapter 6.10, item 2.6)

Symptoms:

2.1.2 Acoustic signal = no exposure

Causes:

- Cassette has been removed too soon
- ID board has been removed too soon
- External light on the AP-PA light barriers

Remedies:

- Remove the cassette only after end of exposure (approx. 2 s)
- Remove the ID board only after end of exposure (approx. 2 s)
- Mount both cover caps on the board holder

Symptoms:

2.1.3 Acoustic signal and display **CASS**

Causes:

- Cassette window jamming
- Micro switch 3.S1 defective or out of adjustment
- Cable interruption (supply to micro switch 3.S1)
- Spring (CM+7.8400.1232.0) broken at the pressure block

Remedies:

- Check the cassette window
- Replace the micro switch or adjust (adjustment, see chapter 6.10, item 2.4)
- Replace the spring

Symptoms:

2.1.4 Cassette cannot be removed

Causes:

- Power failure
- Motor defective

Remedies:

- Cassette cannot be unlocked via the cassette unlocking level (rear machine side)
- Replace the motor (for motor replacement refer to chapter 6.10, item 2.1)

Symptoms:

2.1.5 Display 0000 is flashing only zeros were exposed on the film

Causes:

- The time was not adjusted

Remedies:

- Program the machine (adjust time etc.)

NOTE: In emergencies an exposure can also be carried out immediately without previous programming, in this case only the information ap/pa and the patient data is exposed.

Symptoms:

2.1.6 Motor runs continuously

Causes:

- Detection of home position (5.MC1) defective
- Detection of the exposure position (5.MC2) defective
- Computer interference

Remedies:

- Replace the home position detection (5.MC1)
- Replace the exposure position detection (5.MC2)

Symptoms:

2.1.7 No display after connection of the mains plug

Causes:

- Fuse 5.SI1 defective
- Fuse 5.SI2 defective
- Thermal switch 6.EL1 (thermal cutout) defective
- Thermal switch 7.EL1 (thermal cutout) defective

Remedies:

- Replace fuse 5.SI1 or 5.SI2
- Replace thermal switch 6.EL1 or 7.EL1

Symptoms:

2.1.8 Patient data is not exposed

Causes:

- Lamp 6.LA1 defective
- Control board 4.GS1 defective

Remedies:

- Replace lamp 6.LA1 (for replacement and adjustment refer to chapter 6.10, item 4.4)
- Replace the control board 4.GS1

Symptoms:

2.1.9 Clock data is not exposed

Causes:

- Lamp 5.LA1 defective
- Control board 4.GS1 defective
- Clock display 6.GS1 defective

Remedies:

- Replace lamp 5.LA1 (for replacement and adjustment refer to chapter 6.10, item 4.3)
- Replace the control board 4.GS1
- Replace the clock display 6.GS1

Symptoms:

2.1.10 Motor 5M1 without function, although it is triggered by the microprocessor, 24V missing

Causes:

- LEDs D5 and D6 are under dimensioned. Consequence IC9/10, TS16, R4 defective

Remedies:

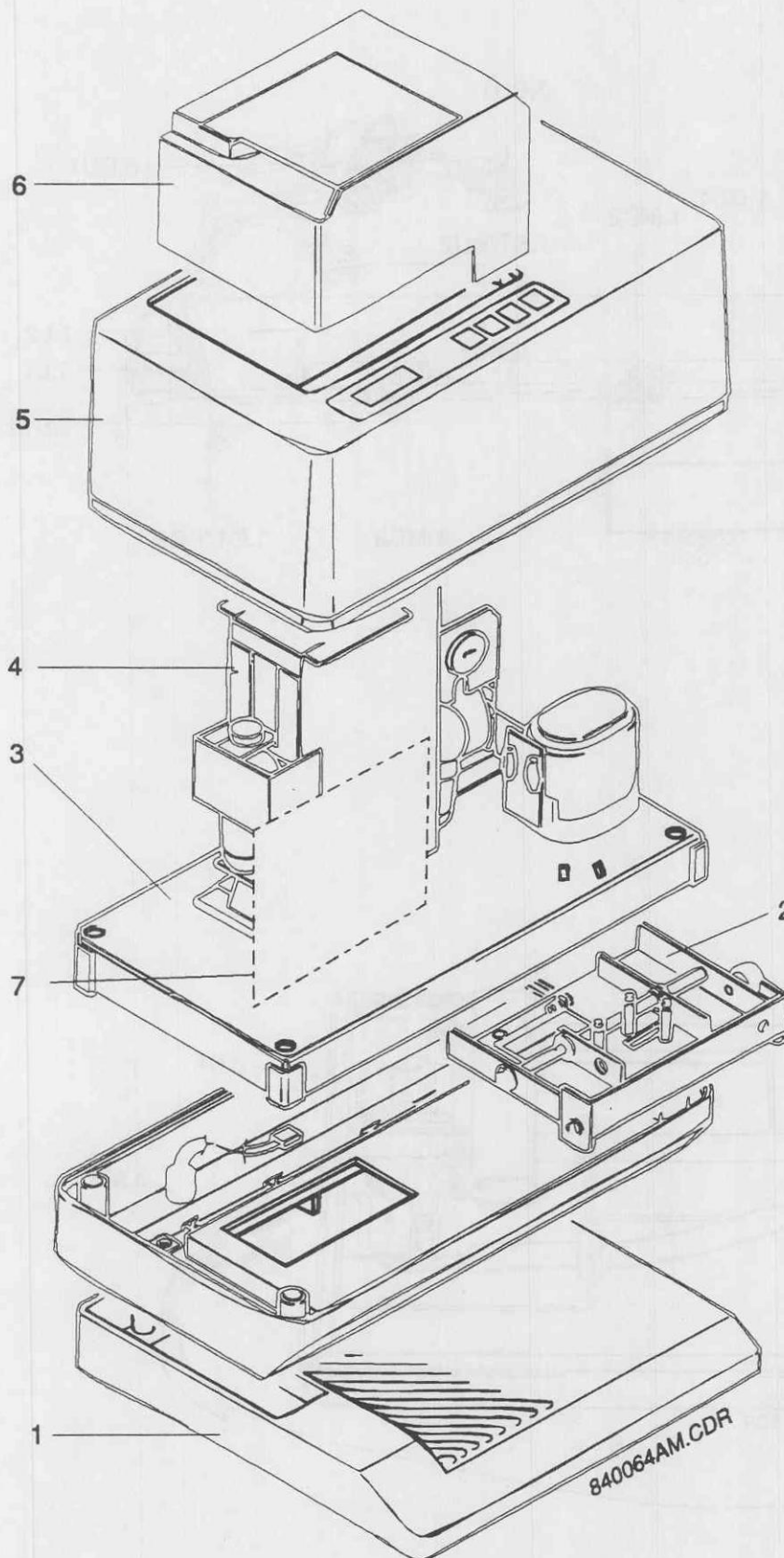
- Installation of D5/D6 with 50mA (part number CM+7.0442.8048.0) or replacement of the GS4 (CM+8.8400.2880.2)

Chapter 6.4: Component Layouts Complete Device/Modules

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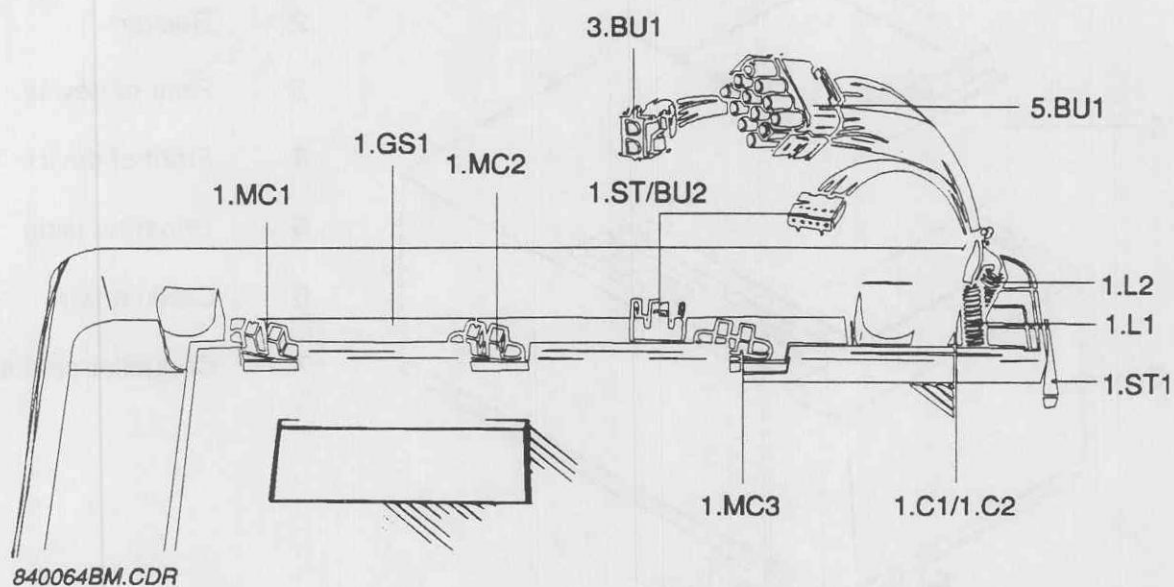
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1. Component plan

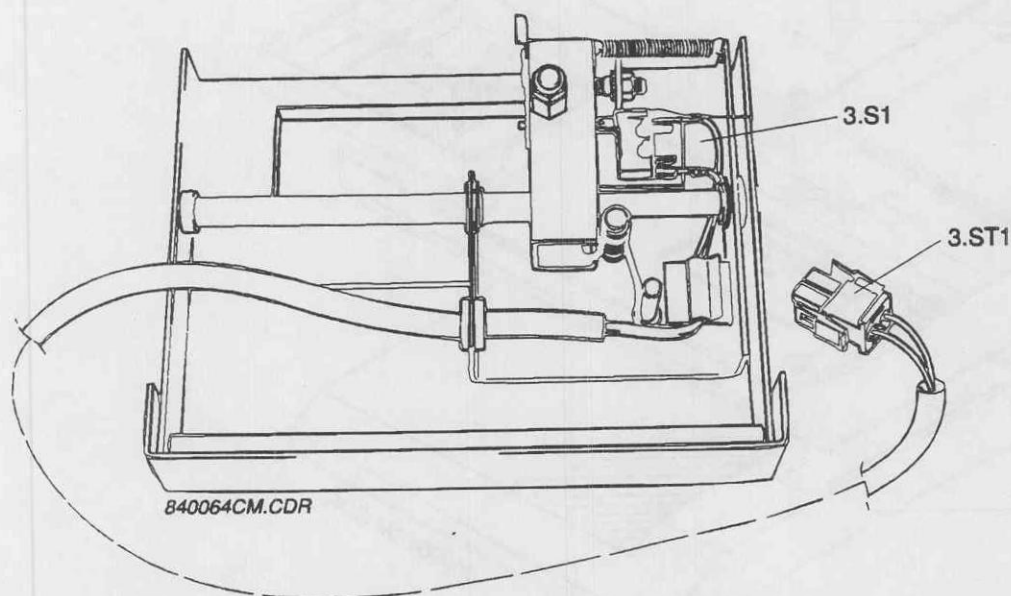


- 1 Base
- 2 Rocker
- 3 Rear of device
- 4 Front of device
- 5 Upper housing
- 6 Card carrier
- 7 Controller card 4.GS1

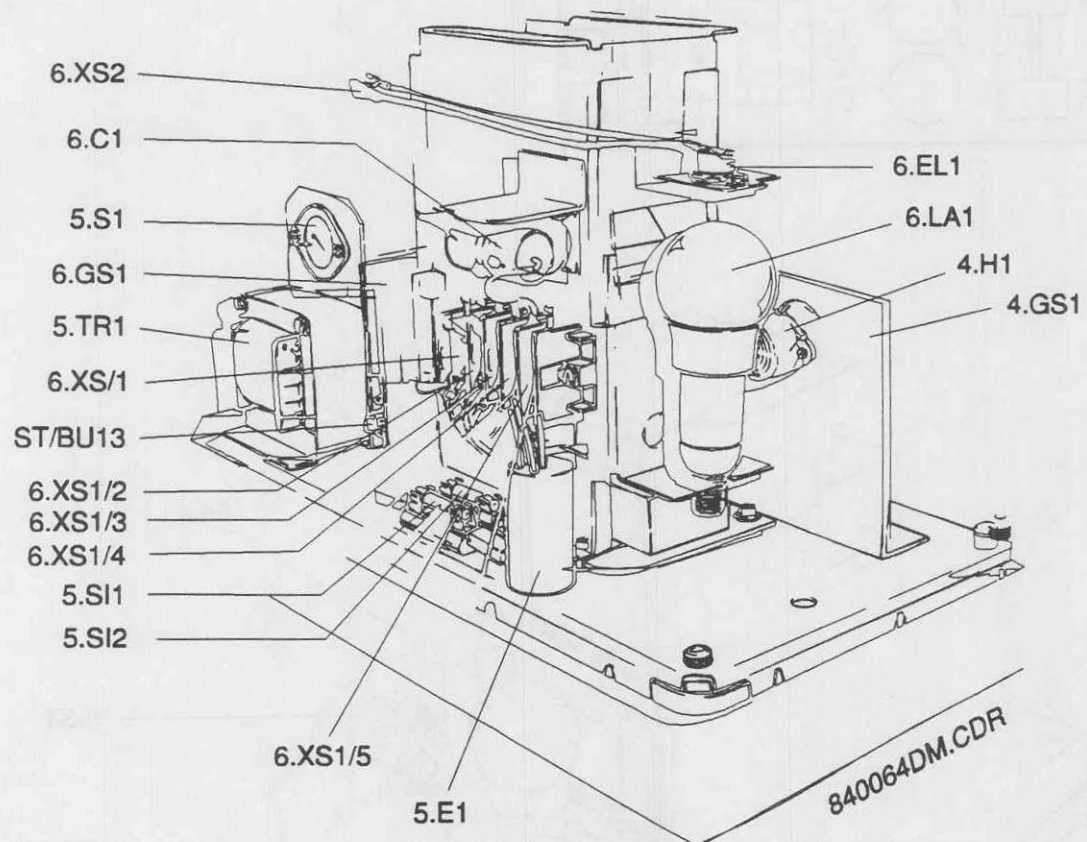
1.1 Base



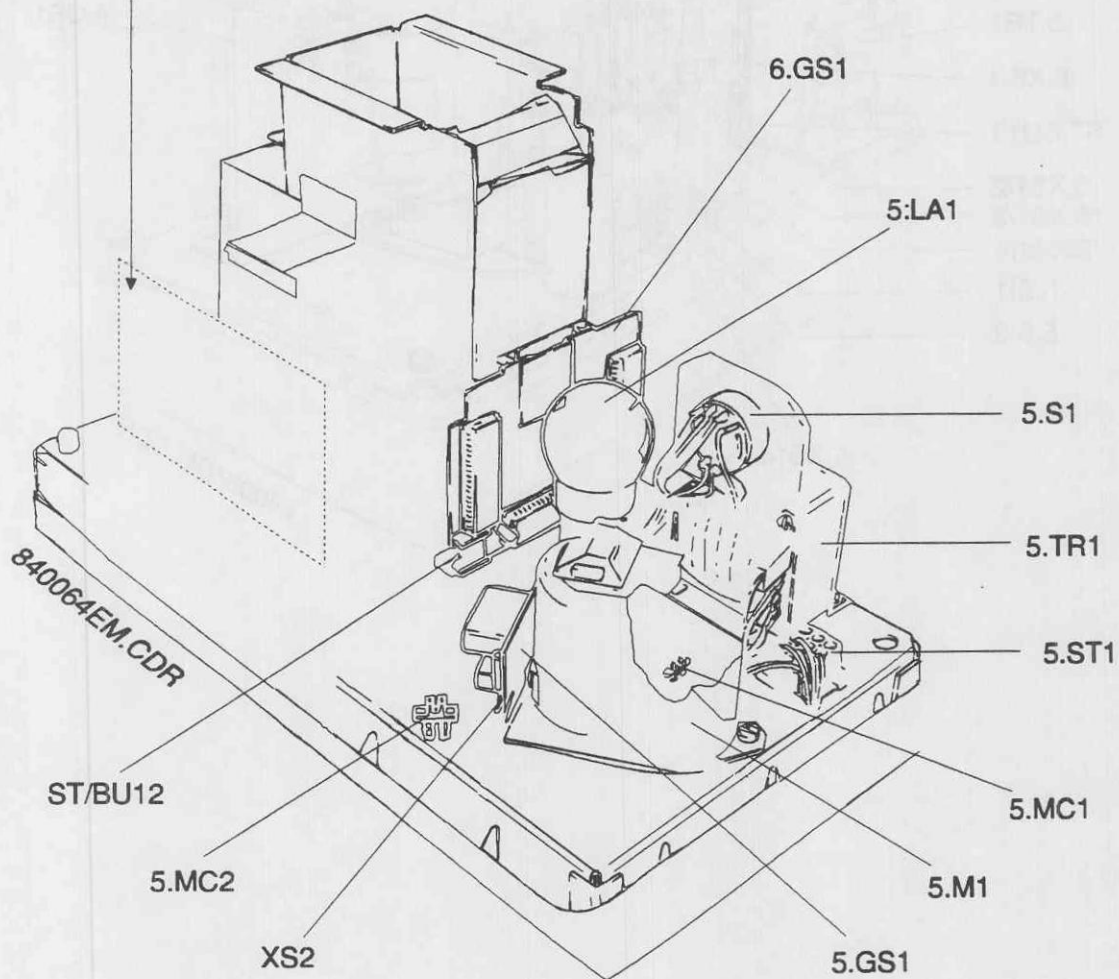
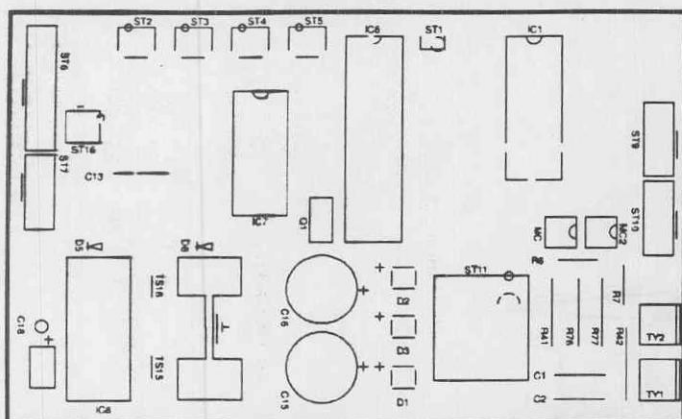
1.2 Rocker



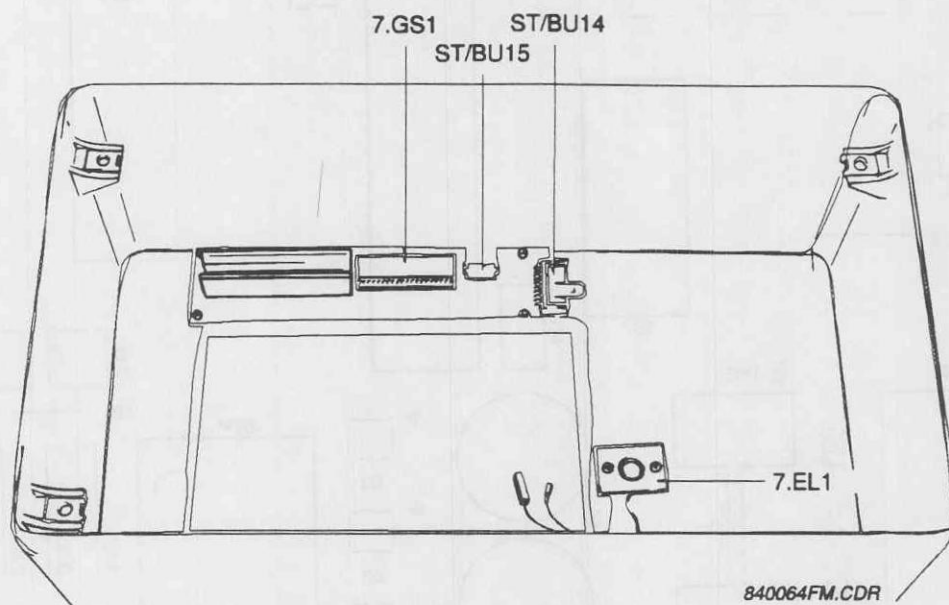
1.3 Rear of device



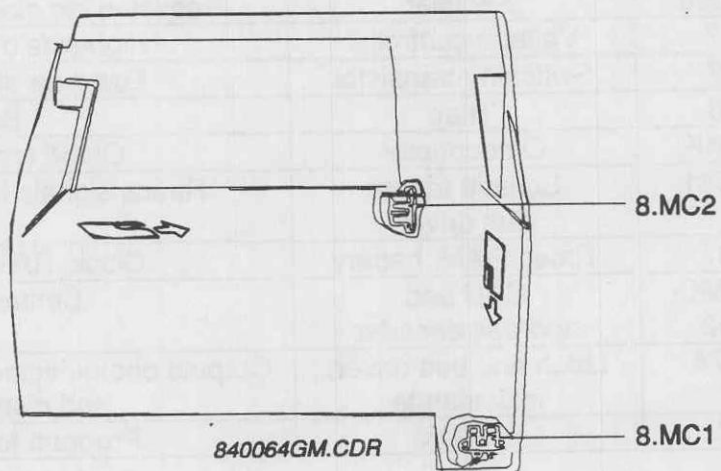
1.4 Front of device



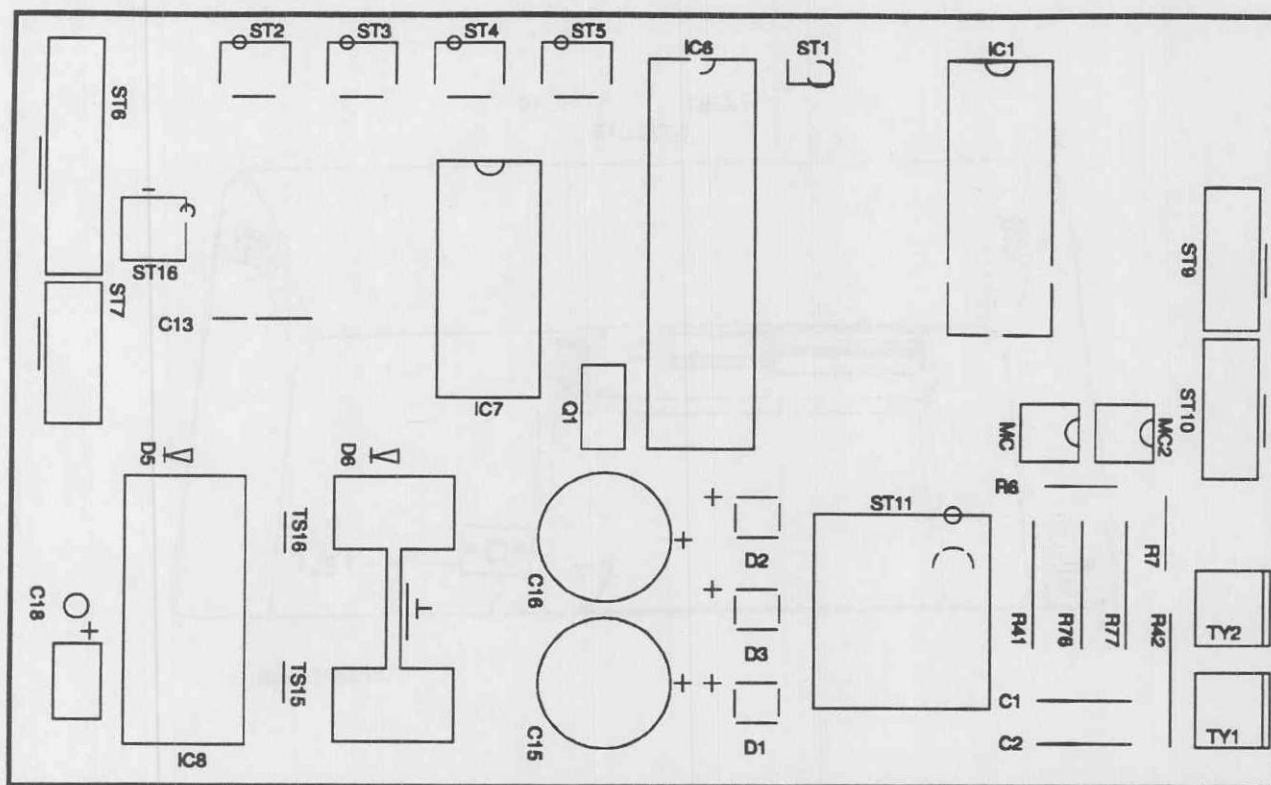
1.5 Upper housing



1.6 Card carrier



1.7 Controller card 4.GS1



840064HM.CDR

Code	Component designation	Component function	Switching function
IC8	L4947	Voltage controller	5 V for ICs and reset
D1	B70C1000	Rectifier	for 5 V supply
D2	B70C1000	Rectifier	for 24 V motor voltage
D3	B70C1000	Rectifier	Freewheeling diodes for motor bridge
IC9, 10	LM317	Voltage controller	High side of motor bridge
TS15, 16	BD437	Switching transistor	Low side of motor bridge
TY1, 2	BT136	Triac	Bulbs
MC1, 2	S21ME4F	Optocoupler	On/off (zero position)
IC3	74HC7541	Schmitt trigger bus driver	Reads signals from ST6 and ST8
IC7	DS1287	Timer, RAM, battery	Clock, RAM and battery
IC6, 4, 2	8031, 74MC-573-132	CPU and address decoder	Controls loads
IC5	74MC574	Latch and bus driver, incl. tristate	Outputs photoelectric barrier select signals and display select
IC1	27C64	EPROM	Program for ID camera

NOTE: The order number for the new controller card 4.GS1 is 8.8400.2880.

Controller card 4.GS1 is always supplied **without EPROM**. The order number for the EPROM is CM+8.8400.2936.1.

2. List of codes

Base

1.GS1	GS cassette detector
1.MC1	Photoelectric barrier - cassette detector
1.MC2	Photoelectric barrier - cassette detector
1.MC3	Photoelectric barrier - cassette detector
1.ST1	AC power supply
1.ST/BU2	
3.BU1	
5.BU1	

Rocker

3.S1	Microswitch (cassette jam detector)
3.ST1	

Rear of device

5.TR1	Mains transformer
5.S1	Voltage selector switch
5.M1	Motor
5.LA1	Bulb for clock display
5.MC1	Photoelectric barrier, motor idle position
5.MC2	Photoelectric barrier, exposure position
5.GS1	GS motor suppressor
5.E1	Suppression filter
5.SI1	Fuse (0.3 or 0.5 A) for 220 V primary circuit
5.SI2	Fuse (0.7 A) for 10 V secondary circuit
5.ST	

Front of device

6.GS1	GS clock display (internal)
6.LA1	Bulb for patient data
6.EL1	Thermal cutout
6.C1	Suppression capacitor
6.XS 1/1 - 1/5	Terminal strip
6.XS2	

Upper housing

7.GS1	GS clock display (external)
7.EL1	Thermal cutout
7.A1	Display
7.A2	LED
7.S1-4	Touch-sensitive keypad

Card carrier

- 8.MC1 ID card-detector photoelectric barrier PA
- 8.MC2 ID card-detector photoelectric barrier AP

Controller card 4.GS1

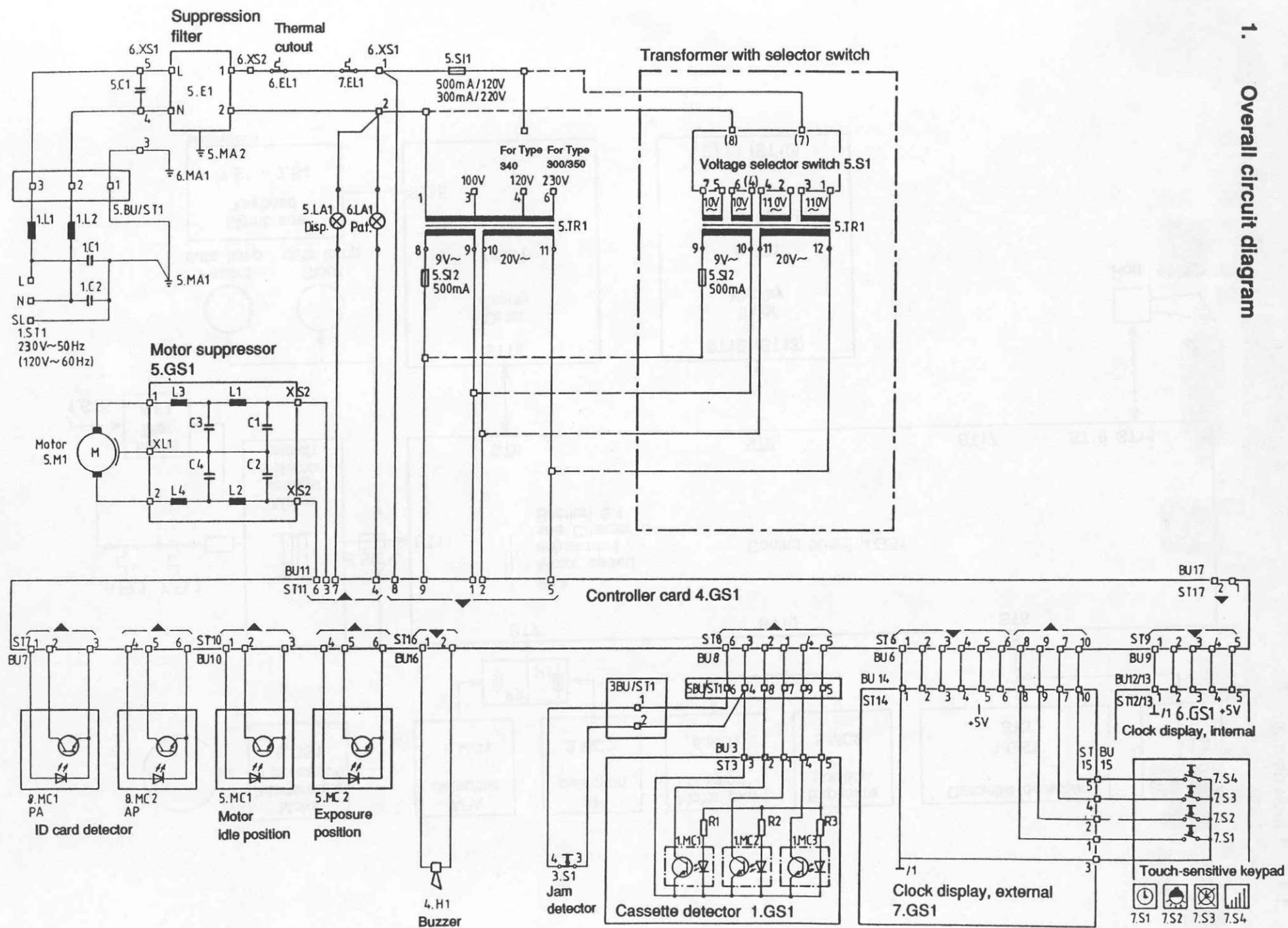
- 4.GS1 GS controller card
- 4.H1 Buzzer

Chapter 6.5: Overall Circuit Diagram Fuses / Voltages

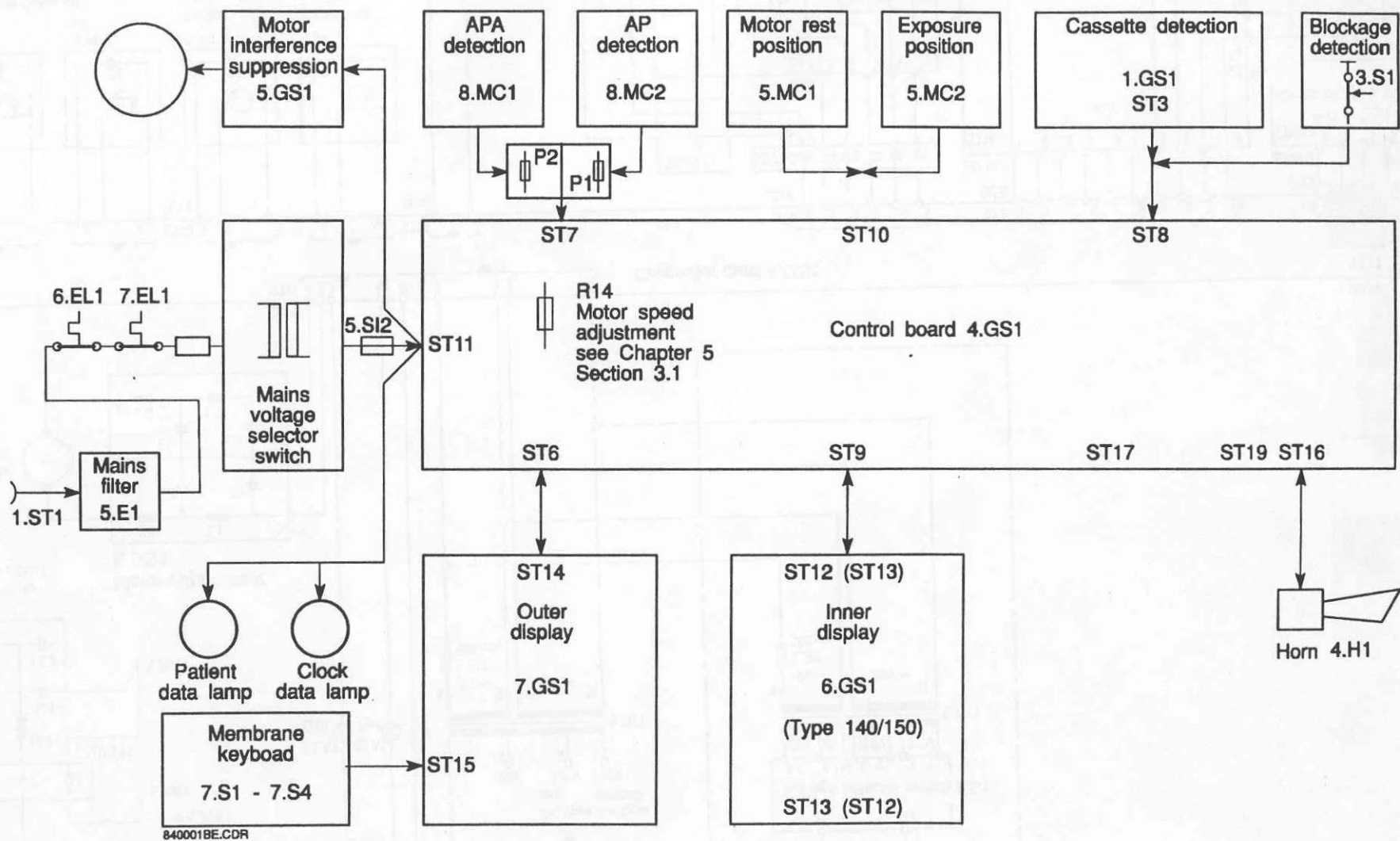
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3. Voltages	5

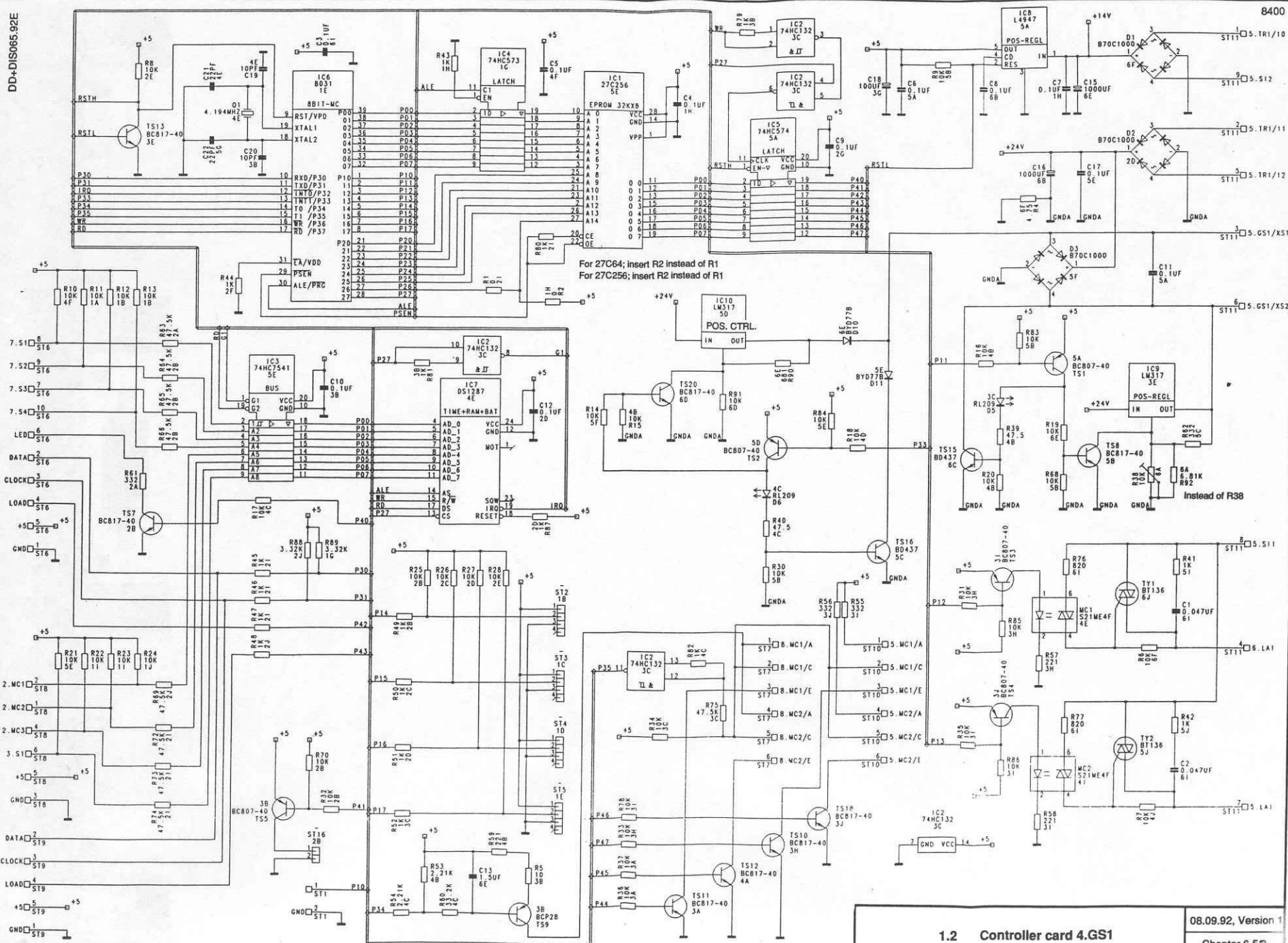
1. Overall circuit diagram



1.1 Block diagram



DD+DIS065.92E



2. Fuses

Component protected	Fuse	Location
AC voltage ~230 V *	SI1 0.3 A, slow-blow *	Rear of device
AC voltage ~120 V **	SI1 0.5 A, slow-blow **	Rear of device
Electronic supply ~9 V	SI2 0.5 A, slow-blow	Rear of device

* = VDE version

** = UL version

3. Voltages

Voltage	Test point	Load
~230 V	St11/4, 8	Bulb for clock display Bulb for patient data
~20 V	St11/2, 5	Feed for controller card 4.GS1 (motor)
~9 V	St11/1, 9	Feed for controller card 4.GS1 (electronics)
+24 V controlled	St11/3, 6	Motor (cassette window)
+5 V controlled	St6/1, 5	EPROM Electronics Liquid-crystal display

Chapter 6.10: Modules

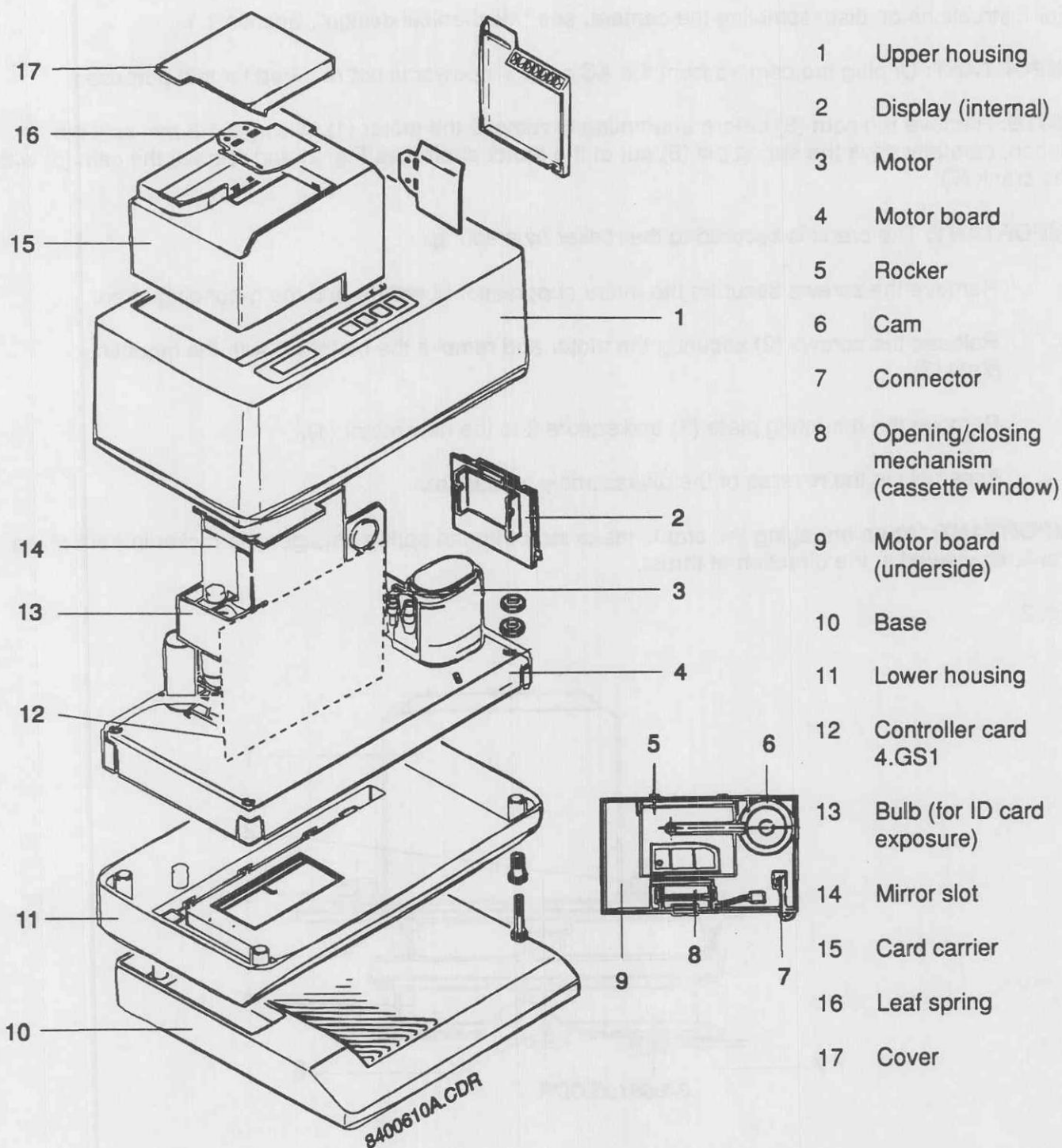
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1. Modules - mechanical design

1.1 Mechanical design of the ID camera

Fig. 1 below is an exploded drawing of the ID camera, showing all the modules.



Important: Before removing the rocker (5) it is advisable to apply two alignment marks, one vertical and one horizontal, at the edge of the motor board with a scribe in order to facilitate reassembly.

2. Repair and adjustment (mechanical)

2.1 Replacing the motor

Special tools: split-pin punch, 1.8 mm (order No. CM+9.9999.0326.0).

For instructions on disassembling the camera, see "Mechanical design", Section 1.1.

IMPORTANT: Unplug the camera from the AC supply if power is not required for test purposes.

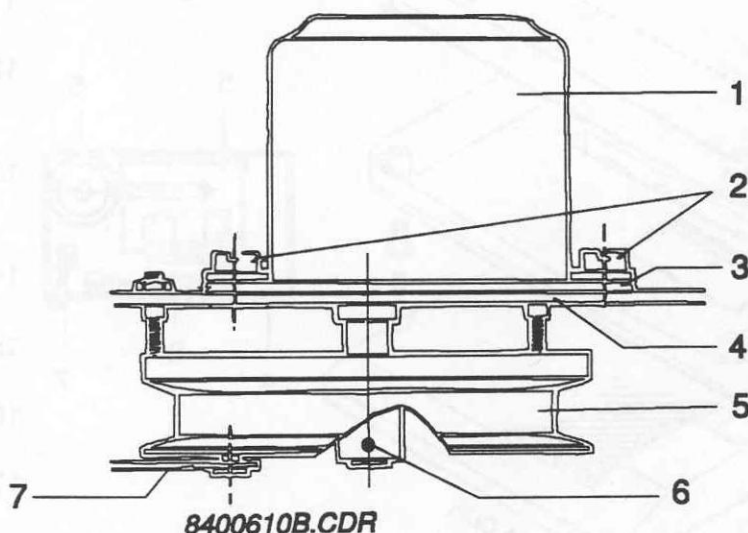
NOTE: Remove the cam (5) before attempting to remove the motor (1). Using a 1.8 mm split-pin punch, carefully drive the spring pin (6) out of the motor shaft (see Fig. 2) and remove the cam (5) with the crank (7).

IMPORTANT: The crank is secured to the rocker by a spring.

- a Remove the screws securing the motor suppressor board (4) and the grounding strap.
- b Release the screws (2) securing the motor and remove the motor (1) with the mounting plate (3).
- c Remove the mounting plate (3) and secure it to the new motor (1).
- d Assembly is the reverse of the disassembly procedure.

IMPORTANT: When engaging the crank, make sure that the spring engages the rocker in front of the crank, as viewed in the direction of thrust.

Fig. 2



2.2 Adjusting the motor and cam

Special tools: Micrometer

IMPORTANT: When engaging the crank, make sure that the spring engages the rocker in front of the crank, as viewed in the direction of thrust.

For instructions on disassembling the camera, see "Mechanical design", Section 1.1.

NOTE: Make sure that the clearance between the bottom of the cam and the motor board (5) is at least 40.1 ± 0.2 mm (see Fig. 3).

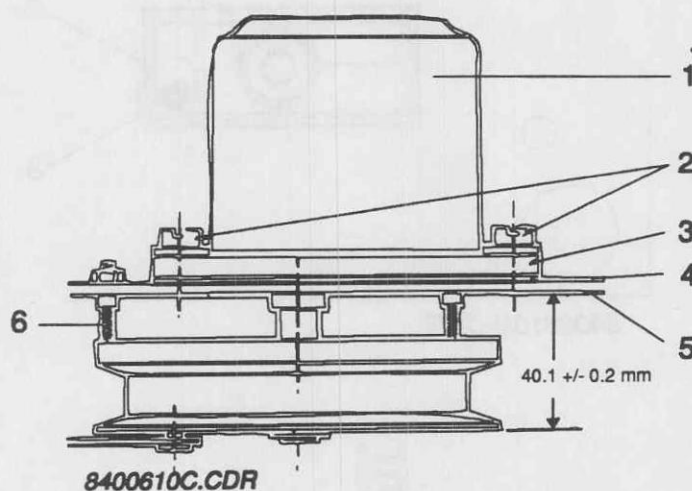
If clearance is not as specified, raise the motor by inserting or removing shims (4) beneath the mounting plate (3).

IMPORTANT: This change also affects the height of the rocker, see Section 2.5.

The spacer posts (6) are set in the factory and cannot be adjusted.

For adjusting motor speed, see electrical adjustment, Section 3.1.

Fig. 3



2.3 Adjusting the latch

Special tools: Micrometer, 10 mm and 8 mm open-ended wrenches, 2.5 mm hex key

IMPORTANT: When engaging the crank, make sure that the spring engages the rocker in front of the crank, as viewed in the direction of thrust.

For instructions on disassembling the camera, see "Mechanical design", Section 1.1.

NOTE: Before measuring, it is advisable to remove the upper housing (CAUTION: 220 V) and disconnect a cable from the drive motor. Insert an ID card and cassette to initiate exposure and briefly close the circuit at the disconnected contact to move the latch (3) to a suitable measuring position (2), approx. 5 mm short of the right-hand stop (see Fig. 4).

- a The distance from the bottom edge of the cassette holder (1) to the tip of the latch must be 10.5 ± 0.1 mm (see Fig. 5).

Fig. 4

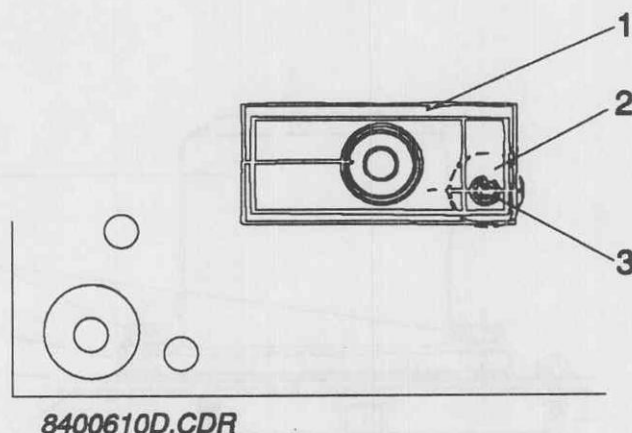
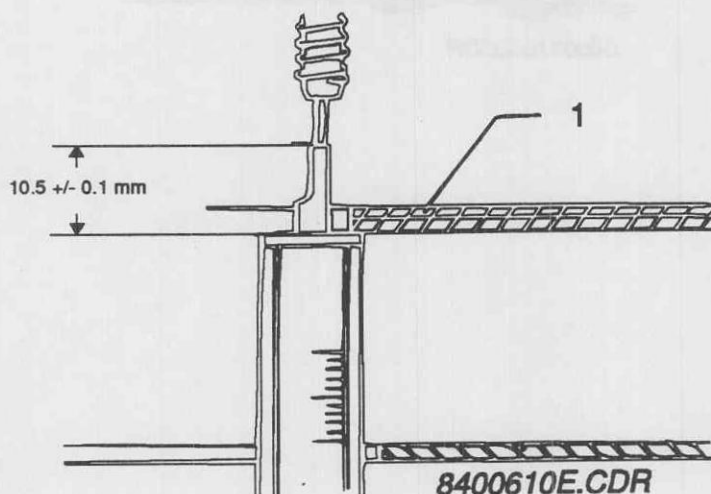


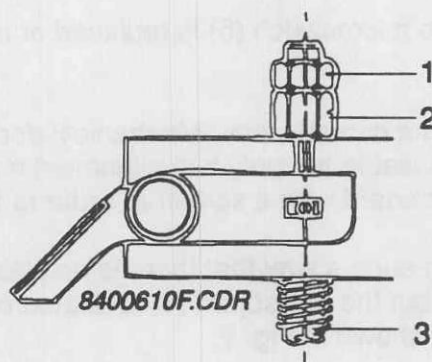
Fig. 5



NOTE: The rocker must be removed (see Section 2.5) to permit adjustment of the latch. Check the height of the rocker before removal, as this also has an effect on the height of the latch (see Section 2.5). Also measure the lateral clearance to avoid the necessity of removing the rocker twice.

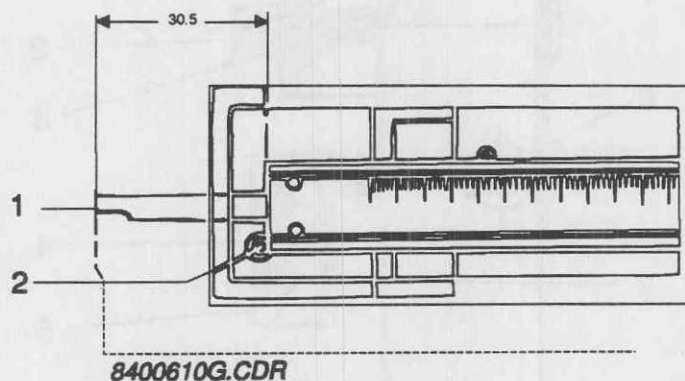
- b Adjust the height of the latch (3) by turning the adjusting nut (2) and the lock nut (1), see Fig. 6.

Fig. 6



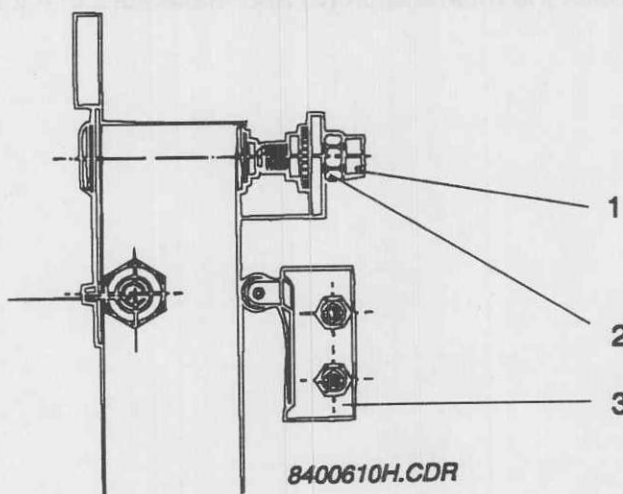
- c The latch (2) is set at a distance of 30.5 mm from the left cassette stop (1), as shown in Fig. 7. When checking this distance, make sure that the latch is at the bottom of its travel, but does not move to the side.

Fig. 7



- d Adjust the lateral position of the latch by turning the socket-head screw (1) and the lock nut (2) as shown in Fig. 8.
- e After lateral adjustment, check the setting of the microswitch (3), see Section 2.4.

Fig. 8



2.4 Adjusting the microswitch

Special tools: 4 mm open-ended wrench, ohmmeter, scriber.

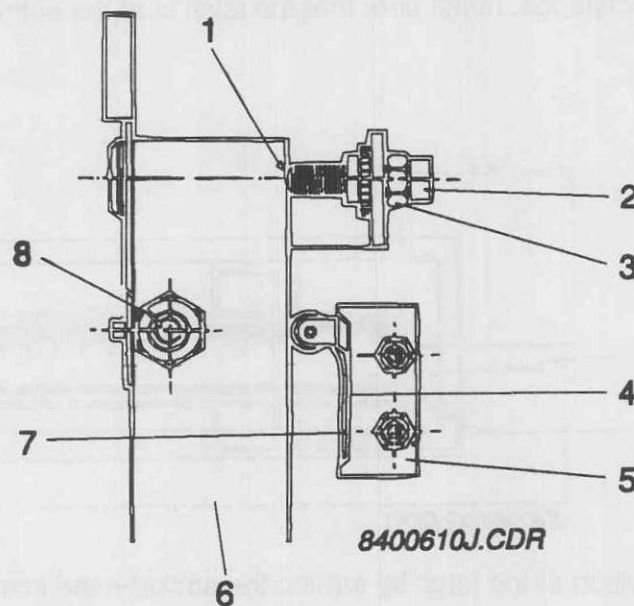
NOTE: Adjustment is required if the microswitch (5) is replaced or if the lateral position of the latch (8) is changed.

For instructions on disassembling the camera, see "Mechanical design", Section 1.1.

Before removing the rocker it is advisable to apply two alignment marks, one vertical and one horizontal, at the edge of the motor board with a scriber in order to facilitate reassembly.

- a Adjust the microswitch (5) in such a way that there is no clearance between the switching lug (7) and the switch housing (4), but the thrust pad (6) is seated on the adjusting screw (2). Secure by tightening lock nut (3) as shown in Fig. 9.

Fig. 9



NOTE: After adjustment, make sure that good contact is made at (1), to ensure that there is no load on the microswitch (5).

- b After adjustment, recheck the microswitch (5) and make sure that it is functioning correctly.

2.5 Adjusting the rocker

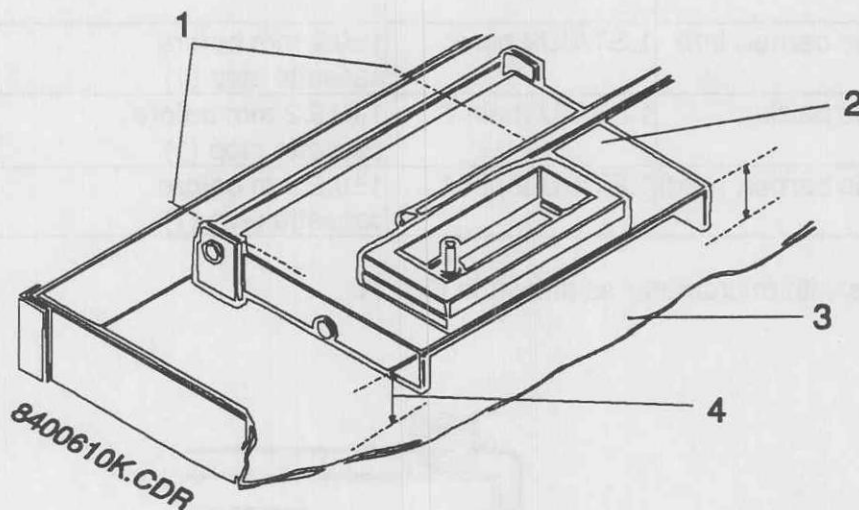
Special tools: Micrometer, 10 mm open-ended wrench, scribe

For instructions on disassembling the camera, see "Mechanical design", Section 1.1.

IMPORTANT: When engaging the crank, make sure that the spring engages the rocker in front of the crank, as viewed in the direction of thrust.

- a Before removing the rocker it is advisable to apply two alignment marks, one vertical and one horizontal, at the edge of the motor board with a scribe in order to facilitate reassembly.
- b For measurement, move the cam from its idle position until the rocker (2) can be pushed down to the limit of its travel.
- c The gap between the front of the rocker (2) and the motor board (3) must be between 40.5 and 40.6 mm (distance (4)). The maximum tolerance for the parallelism of the rocker and the motor board is 0.2 mm (see Fig. 10). Note, however, that the two securing screws (1) for the rocker allow for slight adjustment.

Fig. 10



NOTE: The height (4) is affected to some extent by the height of the cam, see Section 2.2. Moving the rocker sideways affects the lateral clearance of the latch, see Section 2.3.

2.6 Adjusting the cassette detector

Special tools: Micrometer, logic tester

For instructions on disassembling the camera, see "Mechanical design", Section 1.1.

NOTE: After disassembling the camera, reestablish all electrical connections for electrical measurements.

CAUTION: 230 VAC. Controller card 4.GS1: Two triacs and resistors at bottom right are not insulated.

- a Connect the power supply of the logic tester to controller card 4.GS1, ground to ST1, pin 2 and positive to ST8, pin 5.

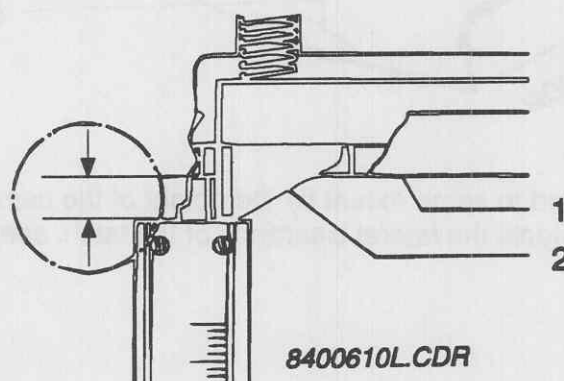
CAUTION: Disconnect the camera from the AC supply before attempting to connect or disconnect the logic tester (risk of short-circuit).

- b Measure the signal at 1 ST/BU 2 on the cassette detector 1.GS1.

Object	Test point	Switching point
1.MC1 (photoelectric barrier, left)	1.ST/BU2 pin 2	1±0.2 mm before cassette stop (1)
1.MC2 (photoelectric barrier, center)	1.ST/BU 2 pin 1	1.8±0.2 mm before cassette stop (1)
1.MC3 (photoelectric barrier, right)	1.ST/BU 2 pin 4	1±0.2 mm before cassette stop (1)

Measure clearances with micrometer as shown in Fig. 11

Fig. 11



- c The three securing screws of the cassette detector 1.GS1 allow for a degree of adjustment.

IMPORTANT: When adjusting 1.GS1, make sure that the lateral position is such that the switching levers (2) do not break the photoelectric barrier.

3. Repair, test points and adjustment (electrical)

3.1 Adjusting the runtime or motor speed

Measuring instruments: Stopwatch

NOTE: The entire exposure process should take 2 ± 0.2 seconds, corresponding to a voltage (measured at the motor) of approx. 19.6 V.

- a Adjust the motor speed at R 38 on controller card 4.GS1.

3.2 Checking the maximum current at 5.SI1 (0.3 or 0.5 A) and 5.SI2 (0.5 A).

Measuring instruments: Digital multimeter

IMPORTANT: Isolate the device from the AC supply.

- a Remove the upper housing from the ID camera (see "Mechanical design", Section 1.1).
Remove fuse 5.SI1 (0.3 or 0.5 A) and connect the fuse to the two fuse holders of an ammeter.
- b Reconnect the power cable to the power supply and measure the current:
max 200 mA for Type 100/150
max 400 mA for Type 140.

IMPORTANT: Isolate the device from the AC supply.

- c Reinsert fuse 5.SI1 and remove fuse 5.SI2 (0.5 A).
- d Reconnect the power cable to the power supply and measure the current: max. 250 mA.

IMPORTANT: Isolate the device from the AC supply.

- e Reinsert fuse 5.SI2.

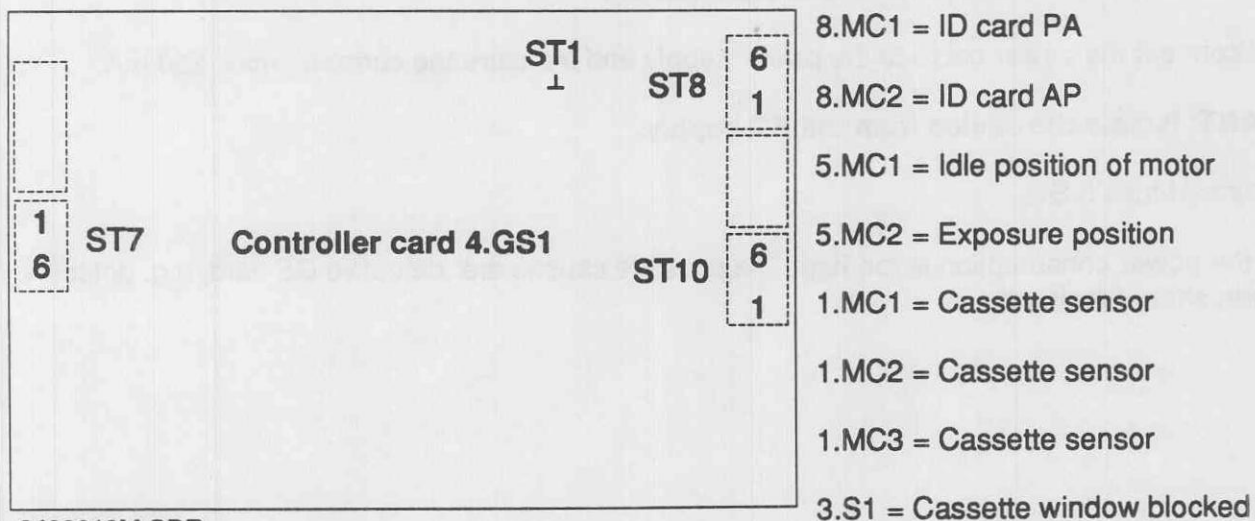
NOTE: If the power consumption is too high, the possible causes are: defective GS card, e.g. defective transformer, short-circuit, etc.

3.3 Input test chart

	8.MC1 PA	8.MC2 AP	5.MC1	5.MC2	1.MC1	1.MC2	1.MC3	3.S1	Meaning
St.	7/2	7/5	10/2	10/5	8/2	8/1	8/4	8/6	Connector/pin
	L	L	H	L	L	L	L	L	Standby
	H	L							Conditions for start satisfied (cassette and ID card correctly inserted)
	L	H	H	L	H	L	H	L	
	H	H							Error: AP and PA photoelectric barriers both interrupted
					H	H	H		Error: All 3 photoelectric barriers interrupted, e.g. cassette wrongly inserted
			L						Motor started, cassette window opens
				H					Motor in exposure position
								H	Error: Window blocked, 3.S1 opens; supply to motor is reversed and motor returns to initial position

Fig. 12

St. = Test point between connector and ST1 (ground for service test)



8400610M.CDR

H = +5V

L = 0V

NOTE: Photoelectric barriers 8.MC1, 8.MC2, 5.MC1 and 5.MC2 can be tested only when the corresponding emitter (St10/8, pin 6/3) is connected to ground (St1) - multiplexed input.

4. Repair and adjustment (optical)

IMPORTANT: All screws in the optical section sealed by means of paint are set before the unit leaves the factory. Do not tamper with these screws, as any attempt to do so will result in maladjustment of the optical unit. Readjustment is a time-consuming and exacting process.

4.1 Adjusting the ID card carrier

A test run is the only way to check whether the ID card carrier is correctly positioned. The exposed data field must be parallel to the edge of the film. If this is not the case, the position can be changed slightly by turning the ID card carrier in the direction contrary to the offset on the test film.

4.2 Replacing the deflector

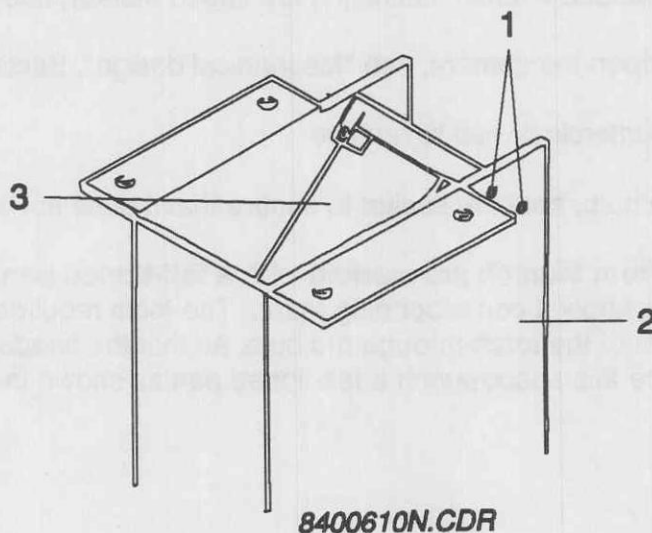
Special tools: 3 mm screwdriver for cross-recessed screws

NOTE: To gain access to the mirror, remove the upper housing and the card carrier, see "Mechanical design", Section 1.1.

- a Remove the four screws (1) securing the upper mirror holder (see Fig. 13) and remove the holder.

IMPORTANT: Do not tamper with the paint-sealed adjusting screws in the holder.

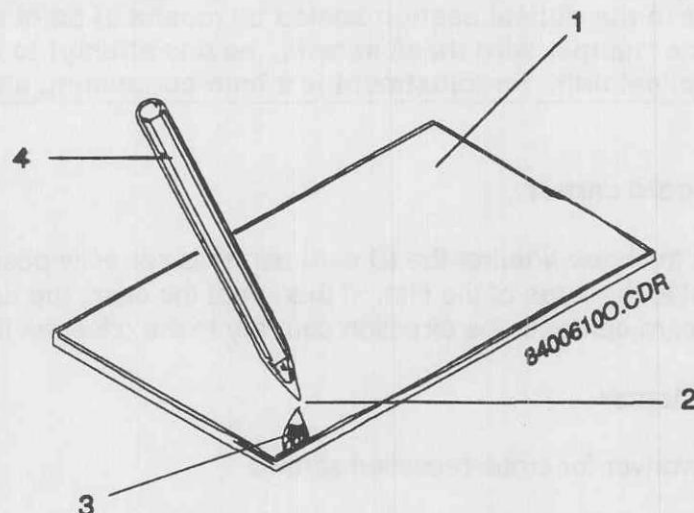
Fig. 13



- b Remove the mirror (3) from the mirror slot (2).
- c Insert a new mirror (1) coated side down (see Fig. 14). Check that there is clearance (2) between the pencil (4) and the reflected image (3).

- d Using a flat-bladed screwdriver, force the two retaining pins in the lower holder down.

Fig. 14



- e It is not necessary to adjust the mirror.
- f Do not forget to adjust the ID card carrier during installation, see Section 4.1.

4.3 Replacing and adjusting bulb 5.LA1 (clock display)

Special tools: 13 mm open-ended wrench, flashlight, felt-tipped marker, micrometer

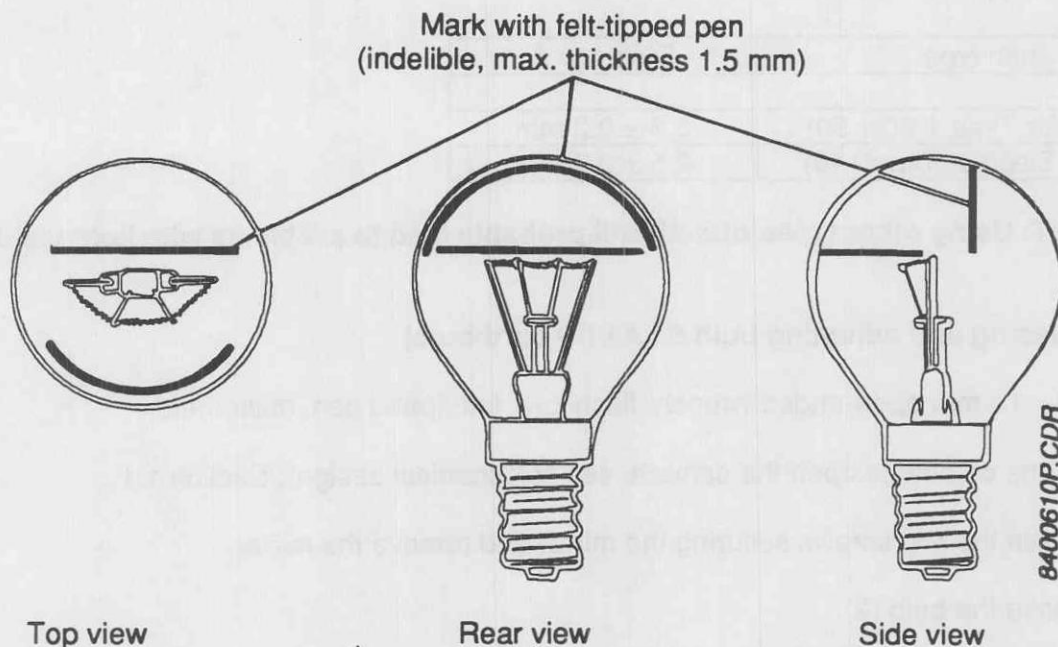
For instructions on how to open the camera, see "Mechanical design", Section 1.1.

- a Turn the bulb (2) counterclockwise to remove.

NOTE: When removing the bulb, hold the socket to ensure that it does not work loose.

Bulbs supplied ex stock from Munich are marked with a felt-tipped pen. Before installing a conventional available bulb, apply a corresponding mark. The tools required are a flashlight and a felt-tipped pen. Shine the beam of the torch through the bulb, so that the shadow of the filament is cast onto the matt coating. Trace this shadow with a felt-tipped pen as shown in Fig. 15.

Fig. 15

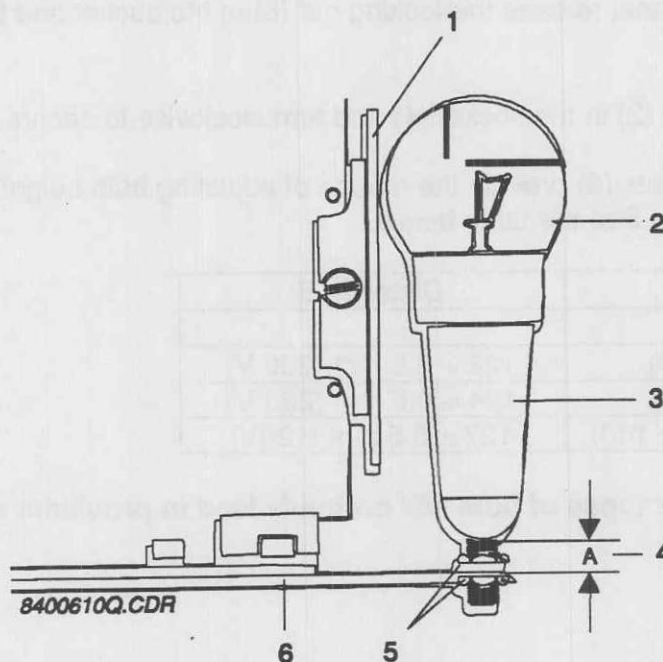


- b Insert the new bulb (2) in its socket (3) and secure by turning clockwise.

IMPORTANT: Use only bulbs having two extra filament holders (see Fig. 15).

NOTE: Make sure that the front of the bulb is toward the clock display (1). If the front of the bulb is not correctly aligned when the bulb is screwed firmly into its socket, release the locking nut (5) on the motor board (6) and turn the entire socket to the correct position (see Fig. 16).

Fig. 16



- c The two securing nuts (5) provide the means of adjusting bulb height. Distance A (4) depends on the type of bulb. See the table below.

Bulb type	Distance A
Osram (for Type 1 00/1 50)	5.5 ± 0.2 mm
General Electric (Type 140)	2.5 ± 0.2 mm

IMPORTANT: Using other types of bulb will probably lead to problems with light yield.

4.4 Replacing and adjusting bulb 6.LA1 (ID card bulb)

Special tools: 13 mm open-ended wrench, flashlight, felt-tipped pen, micrometer

For instructions on how to open the camera, see "Mechanical design", Section 1.1.

- a Release the two screws securing the mirror and remove the mirror.
- b Remove the bulb (2).

NOTE: When removing the bulb, hold the socket to ensure that it does not work loose.

Bulbs supplied ex stock from Munich are marked with a felt-tipped pen. Before installing a conventional available bulb, apply a corresponding mark. The tools required are a flashlight and a felt-tipped pen. Shine the beam of the torch through the bulb, so that the shadow of the filament is cast onto the matt coating. Trace this shadow with a felt-tipped pen (1) as shown in Fig. 17.

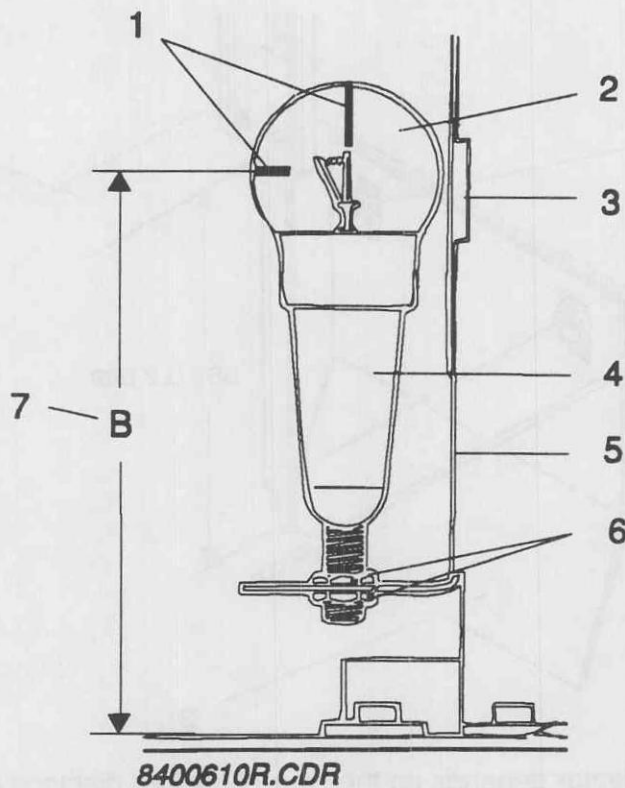
IMPORTANT: The settings vary for bulbs of different makes. When inserting the new bulb (2) in its socket (4), make sure that the front of the bulb (see Fig. 17) faces toward the shutter (3) of the mirror slot (5). If this is not the case, release the locking nut (6) of the socket and turn the entire socket to the correct position.

- c Insert the new bulb (2) in the socket (4) and turn clockwise to secure.
- d The two securing nuts (6) provide the means of adjusting bulb height. Distance B (7) depends on the type of bulb. See the table below.

Bulb type	Distance B
B2 (for Type 100/150)	$122 + 0.5$ mm (230 V)
B1 (for Type 100/150)	$124 + 0.5$ mm (230 V)
General Electric (for Type 140)	127 ± 0.5 mm (120V)

IMPORTANT: Using other types of bulb will probably lead to problems with light yield.

Fig. 17



4.5 Adjusting the angle deflector in the mirror slot

Special tools: 7 mm open-ended wrench, micrometer

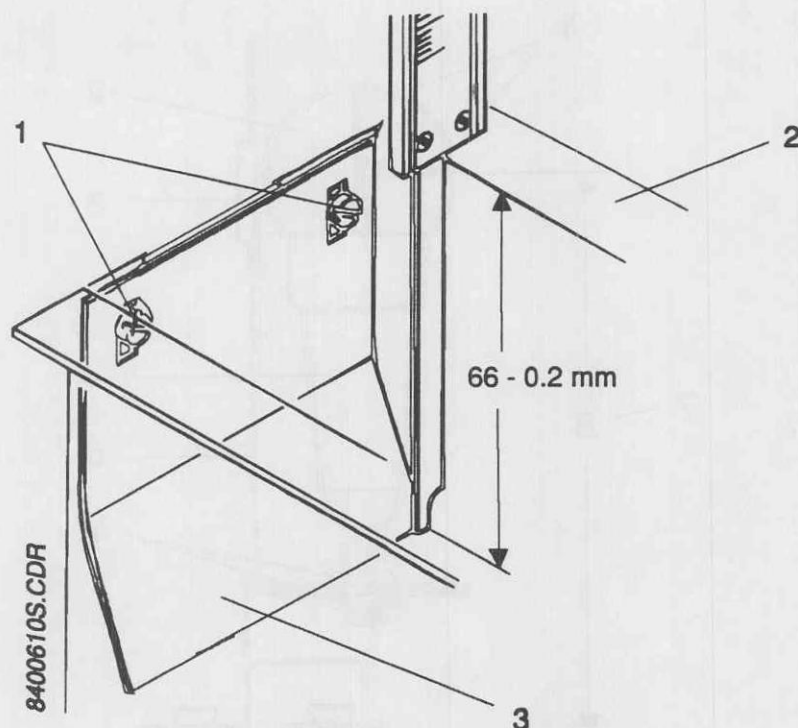
For instructions on how to disassemble the camera, see "Mechanical design", Section 1.1.

- a Adjust the deflector (3) at the securing screws (1), see Fig. 18.

NOTE: The outer plate of the mirror slot (2) must be removed to permit access to the angle deflector.

- b The distance from the upper edge of the mirror slot (2) to the bottom edge of the deflector is 66 - 0.2 mm, measured at both sides of the deflector (see Fig. 18).

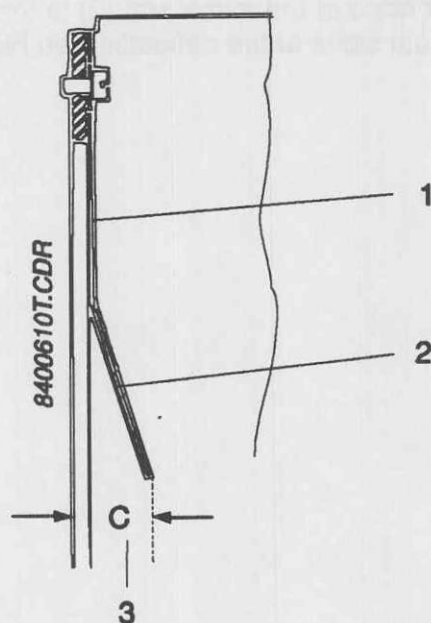
Fig. 18



- c The angle of the deflector depends on the type. Measure distance C (3) from the outer edge of the mirror slot (1) to the deflector (2), (see Fig. 19). The specified distances are listed in the table below.

Type	Distance C
Type 100	$11 \pm 0.2 \text{ mm}$
Type 140	$10 \pm 0.2 \text{ mm}$
Type 150	$10 \pm 0.2 \text{ mm}$

Fig. 19



4.6 Adjusting the mask between the mirror slot and bulb 6.LA1 (ID card bulb)

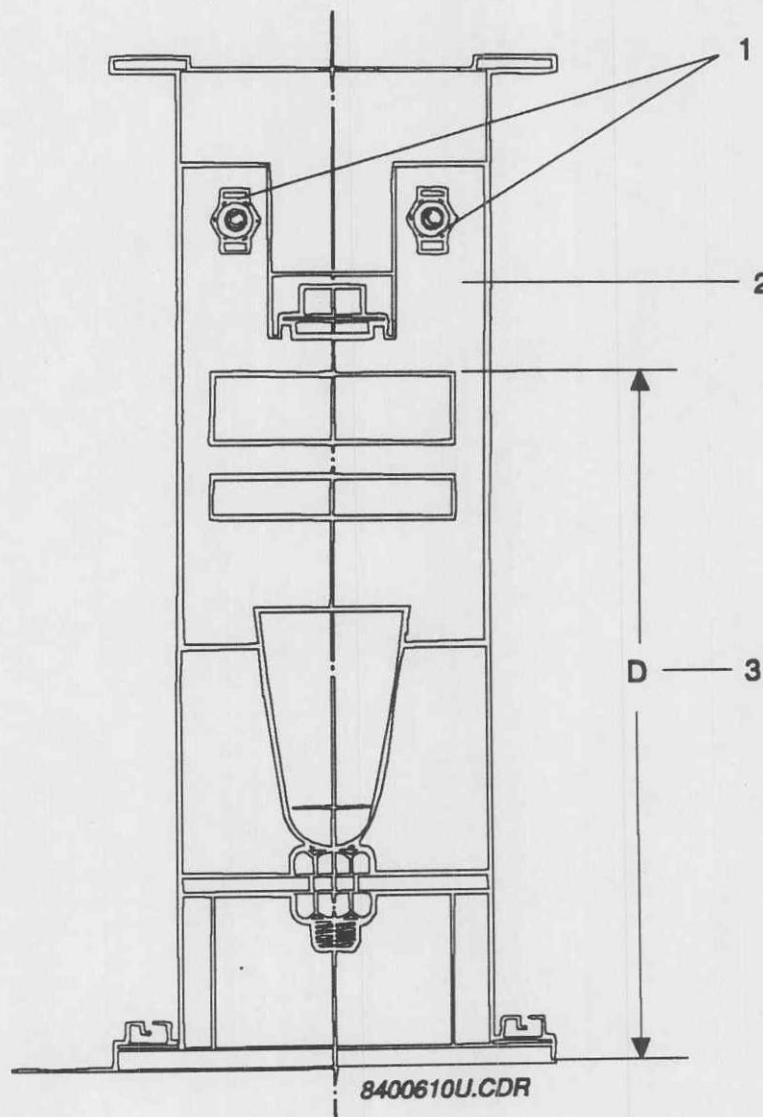
Special tools: 7 mm open-ended wrench, micrometer

For instructions on how to disassemble the camera, see "Mechanical design", Section 1.1.

- a Adjust the mask (2) at nuts (1), see Fig. 20.
- b The height D (3) of the mask depends on the type of bulb used. The specified heights are listed in the table below.

Bulb	Distance D
B1	143.5 ± 0.2 mm
B2	144.5 ± 0.2 mm

IMPORTANT: Using other types of bulb will probably lead to problems with light yield.



Chapter 7

Spare parts list Spare parts groups

Chapter 7 contains:

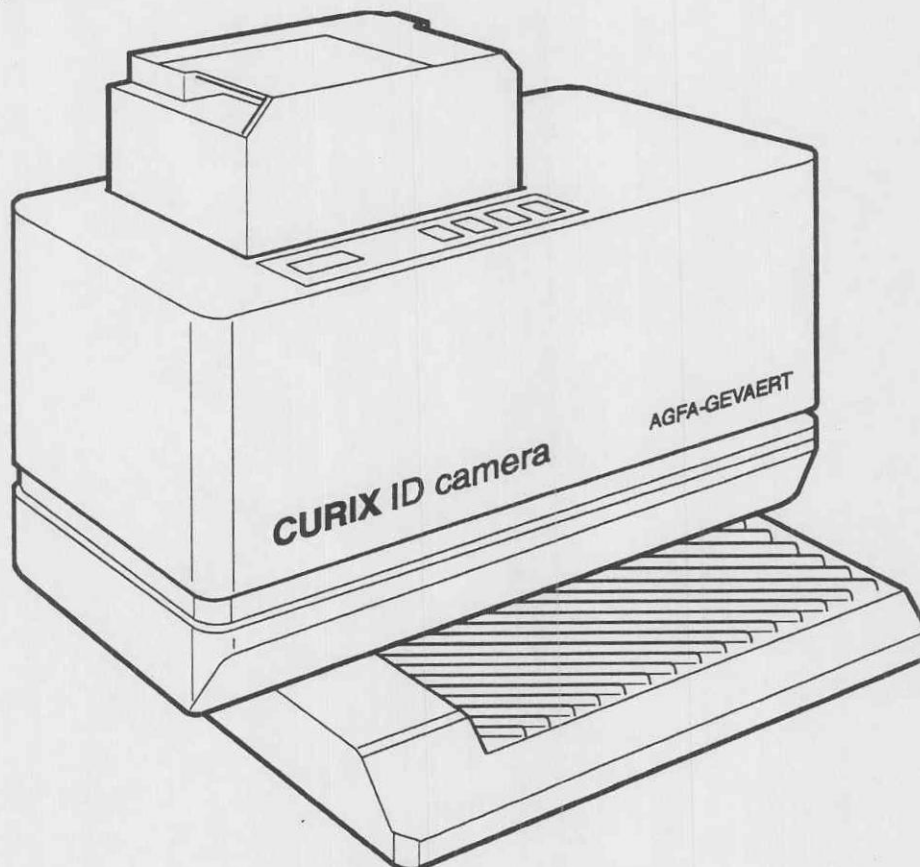
- **Spare parts catalog (exploded drawings) to assist removal and installation and for identification purposes.**
The chapter also includes a definition of the spare parts groups (A,B,C) and the ordering procedure.
- **Spare parts list, explanatory texts in three languages (German, English, French).**

Order no. DD+DIS027.93M

Curix ID Camera
Type/Type 8400/300/340/350

Ersatzteilliste
Spare Parts List
Liste des Pièces de Rechange

1. Ausgabe, II Generation
1 st edition, II generation
1 ème édition, II génération



Die Ersatzteilliste ist gesondert lieferbar: Bestellnummer DD+DIS027.93M
The spare-parts list is available separately: Order number DD+DIS027.93M
La liste des pièces détachées est à votre disposition séparément: No. de Ref. DD+DIS027.93M

TYPENVERZEICHNIS

CURIX ID Camera	230V-240V	8400/300	3DQ7S
	100V/120V	8400/340	3DQ6Q
	230V-240V	8400/350	3DQ5O

TYPE LIST

CURIX ID Camera	230V-240V	8400/300	3DQ7S
	100V/120V	8400/340	3DQ6Q
	230V-240V	8400/350	3DQ5O

LISTE DE TYPES

CURIX Caméra-ID	230V-240V	8400/300	3DQ7S
	100V/120V	8400/340	3DQ6Q
	230V-240V	8400/350	3DQ5O

HINWEISE / NOTE / REMARQUES:

Alle mit * gekennzeichnete Ersatzteile sind nicht ab Lager lieferbar. Bei Bestellung verlängerte Lieferzeit.

Reparaturen elektrischer Art dürfen nur von einer Elektrofachkraft durchgeführt werden!
Reparaturen mechanischer Art dürfen nur von einer Fachkraft durchgeführt werden!

Die mit D... bezeichneten Teile, z.B. D603 sind Normteile. Die Bestellnummern sind der separaten Normteilliste "DD+DIS011.93M" zu entnehmen.

Änderungen von technischen Daten und Eigenschaften vorbehalten

Spare parts marked with a * are not available from stock. Expect extended delivery times.

Repairs must only be carried out by qualified personnel.

Part numbers starting with D..., e.g. D603, refer to standardised parts. For order numbers please refer to the separate spare parts list for standardised parts "DD+DIS011.93M".

Technical data and characteristics subject to alteration in the light of technical progress

Les pièces détachées différenciées par * ne sont pas disponibles départ usine. Délai prolongé en cas de commande.

Les réparations mécaniques et électrique ne doivent être effectuées que par du personnel pqualifié

Les pièces D... par ex. D603 sont des pièces normalisées. Vous trouvez leurs références dans la liste, à part, des pièces normalisées "DD+DIS011.93M".

Sous réserve de modifications des données et caractéristiques par suite de développements techniques.

Erklärung zur Ersatzteil - Sortimentsliste

- Sortiment A:** Beinhaltet nur Verschleißteil für ein Gerät und ein Jahr.
- Sortiment B:** Beinhaltet nicht Sortiment A und C, jedoch alle Teile, die zur Funktionssicherheit während zwei Betriebsjahren je Techniker notwendig sind.
- Sortiment C:** Beinhaltet nicht Sortiment A und B, sondern Teile und Baugruppen, die selten benötigt werden und die im Vertretungszentrallager oder in Ländern mit Einfuhrbeschränkung vorhanden sein sollten.
- Anwendung:** In der Praxis arbeitet der Techniker nur mit Sortiment A und Teilen aus Sortiment B, abhängig von der Anzahl der Geräte und deren regionalen Verteilung. Wagen- und Zentrallagerbestand müssen je nach Geräteanzahl aus Erfahrungswerten der Vertretung vom jeweiligen Serviceleiter mit Unterstützung seines Produktspezialisten ermittelt werden.

BESTELLEN VON ERSATZTEILSORTIMENTEN:

1. Die Listen werden automatisch aktualisiert, sie können mit und ohne Preisangebote bei Agfa.Gevaert München, Abteilung LOG-T angefordert werden.
2. Bei Bestellung unbedingt siebenstellige Typnummer angeben: / ...
3. Die Bestellangabe braucht nur die Anzahl der gewünschten Sortimente A, B, C zu enthalten (also ohne Einzelpositionen).

Description of spare parts list / kits

- KIT A:** Comprises of wear parts for one machine in one year.
- KIT B:** Does not include the parts in kits A and C, however, all parts required per technician to provide reliable function for two years.
- KIT C:** Does not include the parts of kit A and B, but those parts and assemblies which are only occasionally required and should be kept in the warehouse of the subsidiary, or should be on stock in countries with import restrictions.
- Application:** In practice, the technician only works with kit A and parts of kit B, always depending on the number of machines and the location distances. Supplies in the technicians's car and the central warehouse must be determined and completed by the service manager, supported by the product specialist, according to the experience in the agency and with respect to the number of machines.

HOW TO ORDER SPARE PARTS KITS:

1. The listings are automatically updated, they are available with or without price list from Agfa-Gevaert Munich, department LOG-T.
2. Always specify the 7-digit type number in your order: / ...
3. Only the number of required kits A, B, C must be ordered (not the individual parts).

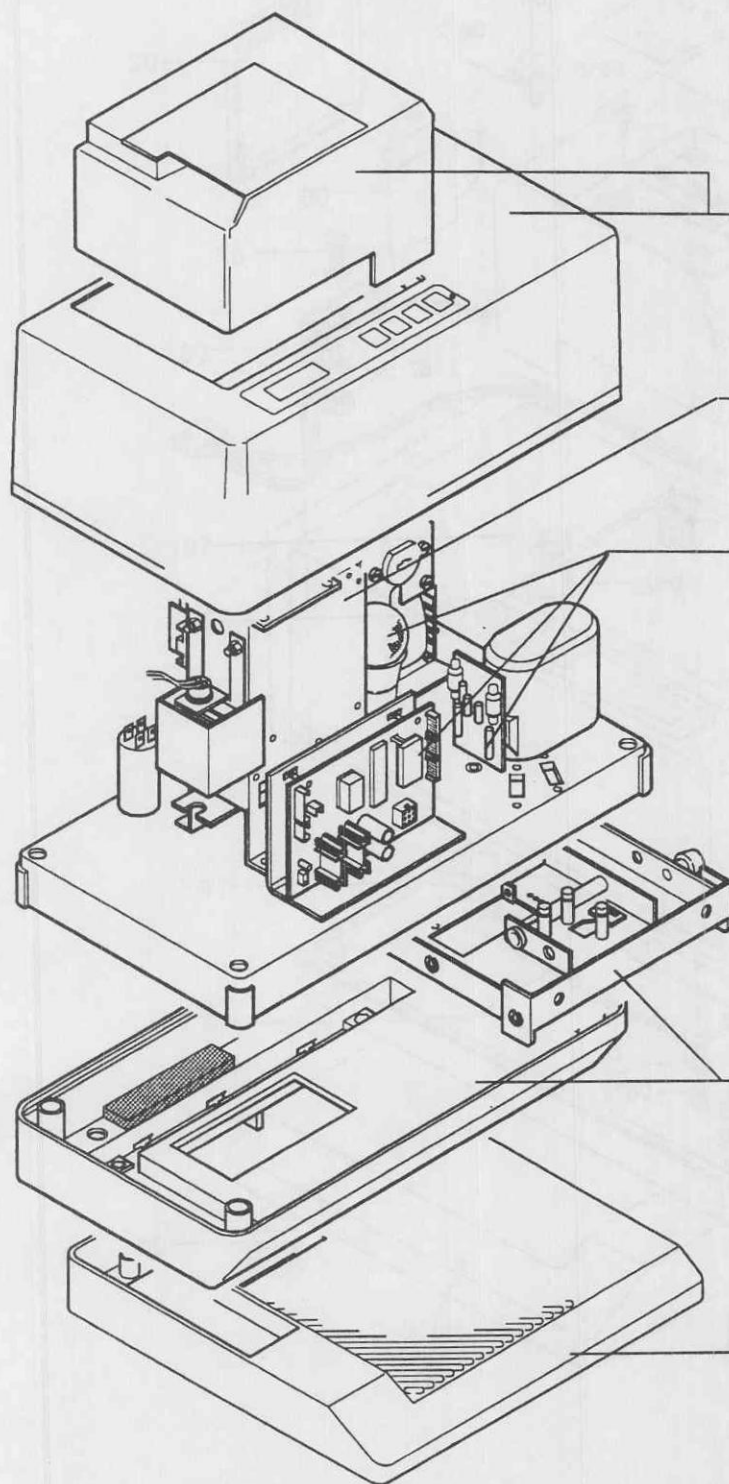
Explication d'assortiments des pièces détachées

- Assortiment A:** Comprend seulement des pièces d'usure par machine et an
- Assortiment B:** Ne comprend pas les assortiments A et C, mais toutes les pièces nécessaires par technicien pour assurer le fonctionnement sûr durant deux années de fonctionnement.
- Assortiment C:** Ne comprend pas les assortiments A et B, mais toutes les pièces et ensembles peu utilisés qui doivent être disponibles dans le magasin central de l'agence ou dans les pays avec restrictions d'importation.
- Application:** En pratique, le technicien travaille seulement avec l'assortiment A et quelques pièces de l'assortiment B, dépendant du nombre de machines et de leur répartition régionale. Les stocks de voiture et du magasin central doivent être fixés par le chef de service en collaboration avec les spécialistes des produits, en fonction du nombre de machines et à la base de valeurs empiriques de l'agence.

Commande de assortiments des pièces détachées:

1. Les listes sont actualisées automatiquement, elles peuvent être obtenues de Agfa-Gevaert Munich, Service LOG-T avec ou sans indication des prix.
2. Indiquer impérativement le no. de type à 7 chiffres lors d'une commande: / ...
3. Il suffit d'indiquer uniquement le nombre désiré des assortiments A, B, C (sans indication des positions individuelles).

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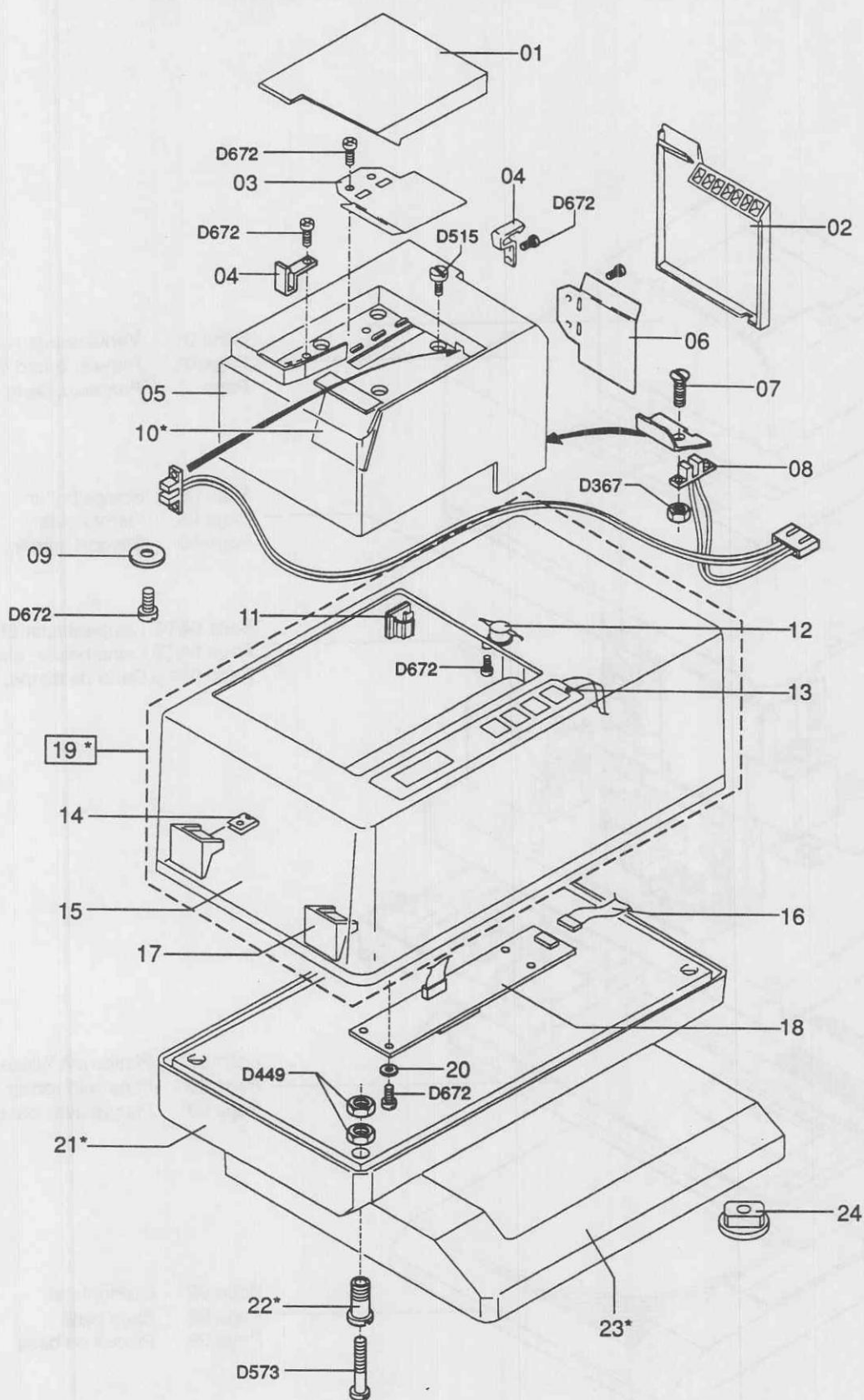
Seite 01 Verkleidung, Kartenträger
 Page 01 Panels, board carrier
 Page 01 Panneau, porte carte

Seite 06 Spiegelhalter
 Page 06 Mirror holder
 Page 06 Support miroir

Seite 04/05 Lampenhalter, Elektronik
 Page 04/05 Lamp holder, electrics
 Page 04/05 Doille de lampe, électronique

Seite 03 Platine mit Wippe
 Page 03 Plate with rocker
 Page 03 Plaque avec bascule

Seite 02 Grundplatte
 Page 02 Base plate
 Page 02 Plaque de base



Pos. Nr.	Teil Nr./ Part No./No. de Réf.	ABC- Code	Benennung / Description / Dénomination
01	CM+7.8400.4305.0		KAPPE / CAP / CAPUCHON
02	CM+7.8400.4303.0		KAPPE / CAP / CAPUCHON
03	CM+7.8400.4004.0		BLATTFEDER / LEAF SPRING / RESSORT A BRANCHES
04	CM+7.8400.4002.0		RASTE / LATCH / CRAN D'ARRET
05	CM+7.8400.4301.0		KARTENTRAEGER, TYP 300 / BOARD CARRIER, TYPE 300 / PORTE-CARTE, TYPE 300
05	CM+7.8400.7301.0		KARTENTRAEGER, TYP 340/350 / BOARD CARRIER, TYPE 340/350 / PORTE-CARTE, TYPE 340/350
06	CM+7.8400.4009.0		BLATTFEDER / LEAF SPRING / RESSORT A BRANCHES
07	CM+7.0301.2050.0		ZYLINDERSCHRAUBE / CHEESE HEAD SCREW / VIS A TETE CYLINDRIQUE
08	CM+8.8400.4830.4		LICHTSCHRANKE / LIGHT BARRIER / BARRIERE LUMINEUSE
09	CM+7.0325.5150.0		SCHEIBE-3,2x12x1 / WASHER / RONDELLE
10	CM+8.8400.4010.0 *		BLENDE / COVER / RECOUVREMENT
11	CM+7.0371.8019.0		HAFTSCHELLE / CLIP / COLLIER ADHESIF
12	CM+7.0482.2127.0		TEMPERATUR-SCHALTER 60°C / TEMPERATURE SWITCH 60°C / INTERRUPTEUR THERMOSTATIQUE 60°C
13	CM+8.8400.5310.0		FOLIENASTUR, D-TASTE 400 / TOUCH KEY, D KEY 400 / CLAVIER TACTILE, TOUCHE D 400
14	CM+7.0341.3020.0		BLECHMUTTER / PLATE NUT / ECROU PLAQUE
15	CM+7.8400.5301.0		HAUBE / HOOD / CAPOT
16	CM+8.8400.5810.2		KABEL FL.10pol / CABLE / CABLE
17	CM+7.8400.5002.0		HALTERUNG / HOLDER / FIXATION
18	CM+8.8400.5830.4		GS ANZEIGE AUSSEN / GS DISPLAY OUTER / AFFICHAGE CI EXTERNE
19	CM+8.8400.5300.0 *		HAUBE / HOOD / CAPOT
20	CM+7.0329.2610.0		SCHEIBE-3,2x8x1 / WASHER / RONDELLE
21	CM+7.8400.0531.1 *		GEHAUSEUNTERTEIL / HOUSING BOTTOM PART / BOITIER PARTIE INFERIEURE
22	CM+7.8400.0502.1 *		GEWINDEBUCHSE / THREADED BUSH / DOUILLE FILETE
23	CM+8.8400.3310.0 *		GRUNDPLATTE / BASE PLATE / PLAQUE DE BASE
24	CM+7.9560.1107.0		GUMMIFUSS / RUBBER FOOT / PIED CAOUTCHOUC

Alle mit * gekennzeichneten Ersatzteile sind nicht ab Lager lieferbar. Bei Bestellung verlängerte Lieferzeit.

Die mit D... bezeichneten Teile, z.B. D603 sind Normteile. Die Bestellnummern sind der separaten Normteilliste "DD+DIS011.93M" zu entnehmen.

Spare parts marked with * are not available from stock. Expect extended delivery times.

Part numbers starting with D..., e.g. D603, refer to standardised parts. For order numbers please refer to the separate spare parts list for standardised parts "DD+DIS011.93M".

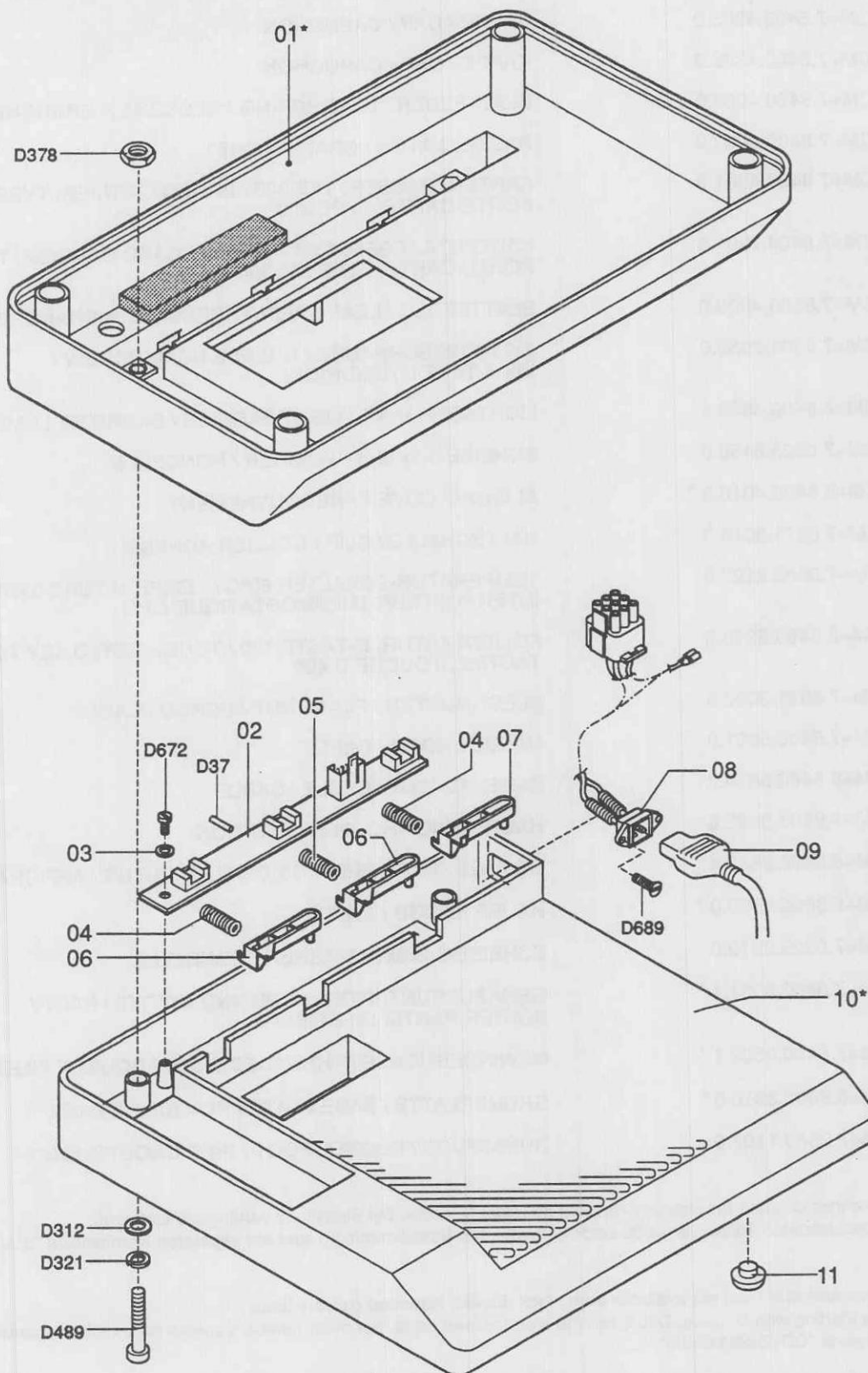
Les pièces différenciées par * ne sont disponibles départ usine. Délai prolongé en cas de commande.

Les pièces D... par ex. D603 sont des pièces normalisées. Vous trouvez leurs références dans la liste, à part, des pièces normalisées "DD+DIS011.93M".



= Baugruppe / Assembly / Modul

Verkleidung, Kartenträger
Panels, board carrier
Panneau, porte carte



Pos. Nr.	Teil Nr./ Part No./No. de R�f.	ABC- Code	Benennung / Description / D�nomination
01	CM+7.8400.0531.1 *		GEHAEUSEUNTERTEIL / HOUSING BOTTOM PART / BOITIER PARTIE INFERIEURE
02	CM+8.8400.3830.5		GS KASSETTENABTASTUNG / CASSETTE DETECTOR / DETECTEUR DE CASSETTE
03	CM+7.0329.2610.0		SCHEIBE-3,2x8x1 / WASHER / RONDELLE
04	CM+7.8400.3003.1		DRUCKFEDER / COMPRESSION SPRING / RESSORT DE PRESSION
05	CM+7.8400.3004.1		DRUCKFEDER / COMPRESSION SPRING / RESSORT DE PRESSION
06	CM+7.8400.3002.0		HEBEL / LEVER / LEVIER
07	CM+7.8400.3006.0		HEBEL / LEVER / LEVIER
08	CM+8.8400.3850.1		NETZANSCHLUSS / POWER CONNECTION / RACCORD RESSEAU
09	CM+7.0470.3400.0		KABEL 3pol, TYP 300/350 / CABLE, TYPE 300/350 / CABLE, TYPE 300/350
09	CM+7.0470.1290.0		KABEL 3pol, TYP 340 / CABLE, TYPE 340 / CABLE, TYPE 340
10	CM+8.8400.3310.0 *		GRUNDPLATTE / BASE PLATE / PLAQUE DE BASE
11	CM+7.9560.1107.0		GUMMIFUSS / RUBBER FOOT / PIED CAOUTCHOUC

Alle mit * gekennzeichneten Ersatzteile sind nicht ab Lager lieferbar. Bei Bestellung verl ngerte Lieferzeit.

Die mit D... bezeichneten Teile, z.B. D603 sind Normteile. Die Bestellnummern sind der separaten Normteilliste "DD+DIS011.93M" zu entnehmen.

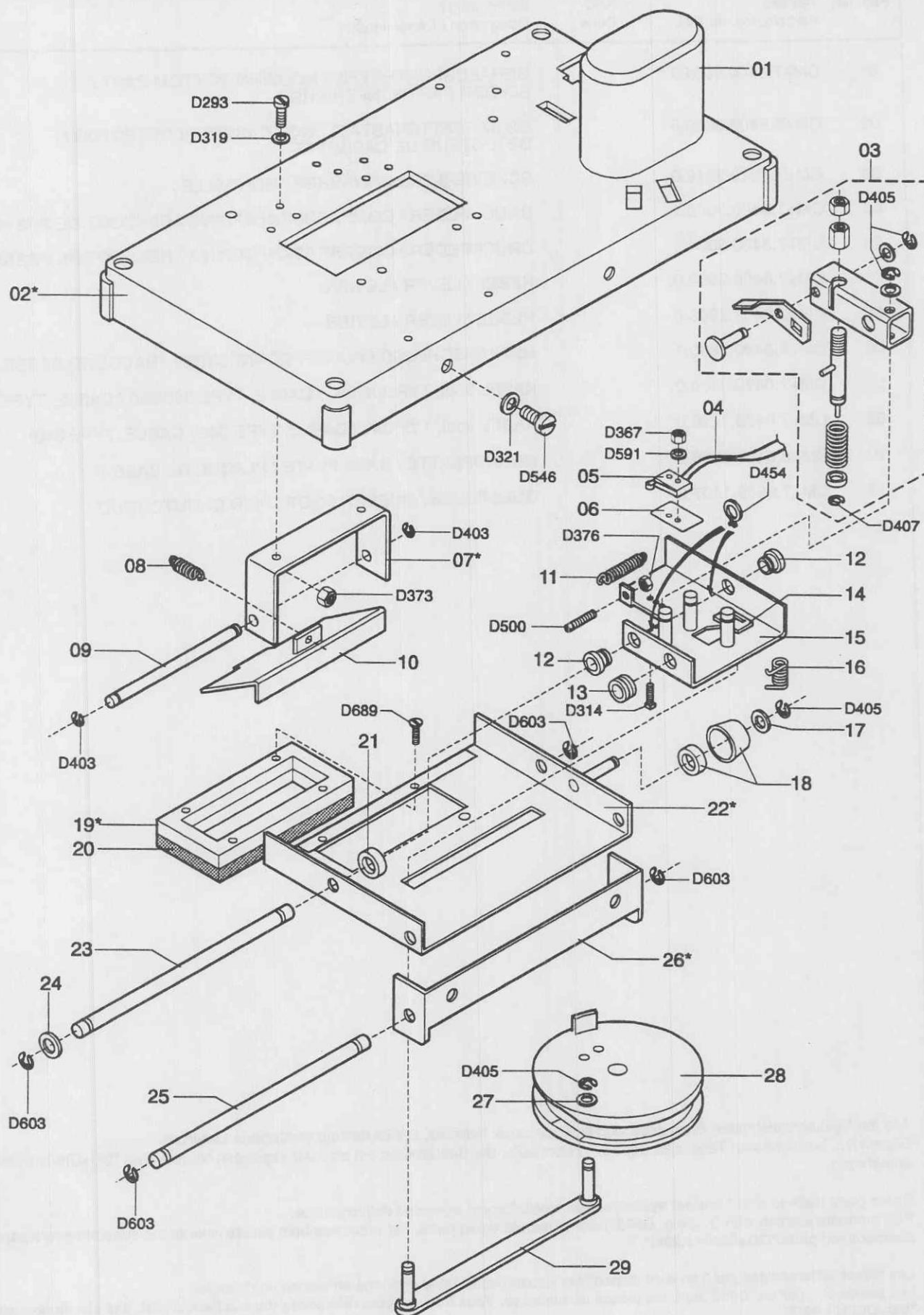
Spare parts marked with * are not available from stock. Expect extended delivery times.

Part numbers starting with D..., e.g. D603, refer to standardised parts. For order numbers please refer to the separate spare parts list for standardised parts "DD+DIS011.93M".

Les pi ces diff renci es par * ne sont disponibles d part usine. D lai prolong  en cas de commande.

Les pi ces D... par ex. D603 sont des pi ces normalis es. Vous trouvez leurs r f rences dans la liste,   part, des pi ces normalis es "DD+DIS011.93M".

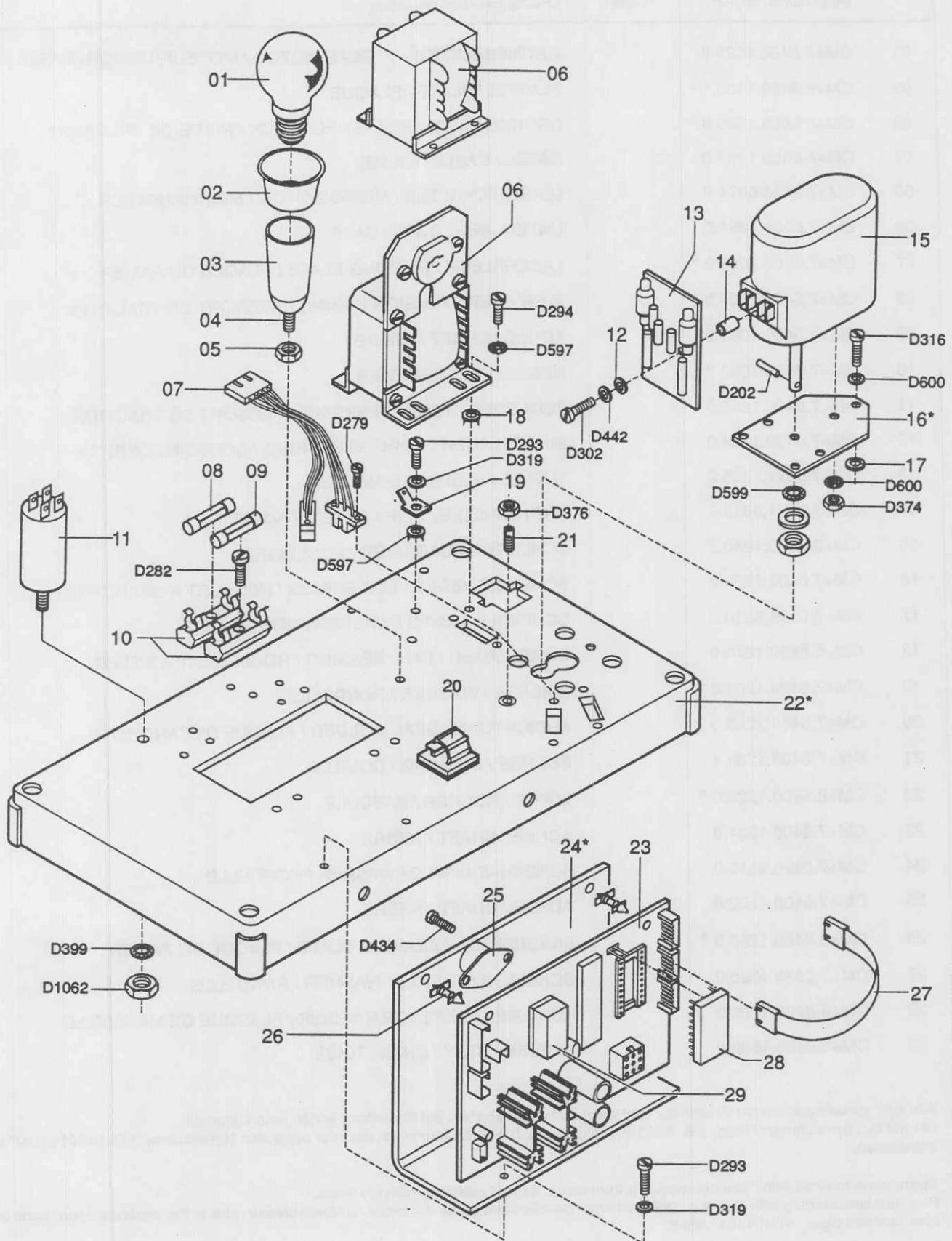
Grundplatte
Base plate
Plaque de base



84000703.CDR

Platine mit Wippe
 Plate with rocker
 Plaque avec bascule

Pos. Nr.	Teil Nr./ Part No./No. de Réf.	ABC- Code	Benennung / Description / Dénomination
01	CM+7.8400.0101.0		LAMPE, TYP 300/350, 230V / LAMP, TYPE 300/350, 230V / LAMPE, TYPE 300/350, 230V
	CM+7.8400.0147.0		LAMPE, TYP 340, 120V / LAMP, TYPE 340, 120V / LAMPE, TYPE 340, 120V
02	CM+7.8400.1609.0		MANSCHETTE / MANCHETTE / MANCHETTE
03	CM+7.0451.5482.0		LAMPENFASSUNG, TYP 300/350 / LAMP MOUNT, TYPE 300/350 / DOUILLE DE LAMPE, TYPE 300/350
03	CM+7.0451.5427.0		LAMPENHALTER, TYP 340 / LAMP MOUNT, TYPE 340 / CULOT, TYPE 340
04	CM+7.0451.5481.0		GEWINDEROHR / THREADED PIPE / TUBE FILETE
05	CM+7.0451.5479.0		6KT-MUTTER / HEXAGON NUT / ECROU HEXAGONAL
06	CM+7.0433.7045.0		TRAFO / 10V 0.5A/20V 2.0A (TYP 300 bis FN1570, TYP 350 bis FN 1205) / TRANSFORMER (TYPE 300 up to SN1570, TYPE 350 up to SN 1205) / TRANSFORMATEUR, (TYPE 300 jusqu'au NF1570, TYPE 350 jusqu'au NF 1205)
06	CM+7.0433.7120.0		TRAFO / 10V 0.5A/20V 2.0A (TYP 300 ab FN1571, TYP 350 ab FN 1206) / TRANSFORMER (TYPE 300 from SN1570, TYPE 350 from SN 1205) / TRANSFORMATEUR, (TYPE 300 á partir du NF 1571, TYPE 350 á partir du NF 1206)
07	CM+8.8400.2920.2		LICHTSCHRANKE / LIGHT BARRIER / BARRIERE LUMINEUSE
08	CM+7.0451.9702.0		SICHERUNGS-EINSATZ T 300MA / FUSE / FUSIBLE
09	CM+7.0451.9707.0		SICHERUNGS-EINSATZ T 500MA / FUSE / FUSIBLE
10	CM+7.0452.2242.0		SICHERUNGSHALTER / FUSE HOLDER / PORTE FUSIBLE
11	CM+7.0436.5242.0		ENTSTÖRFILTER / SUPPRESSION FILTER / FILTRE D'ANTI PARASITAGE
12	CM+7.0325.7490.0		SCHEIBE-3,6x8,5x0,2 / WASHER / RONDELLE
13	CM+8.8400.2950.1		GS FUNKENTSTÖRUNG / GS INTERFERENCE SUPPRESSION / CI ANTIPARASITAGE
14	CM+7.8400.1014.0		ABSTANDSROHR / SPACER TUBE / TUBE D'ECARTEMENT
15	CM+8.8400.1020.0		GETRIEBEMOTOR / GEAR MOTOR / MOTEUR D'ENGRENAGE
16	CM+7.8400.1013.1 *		PLATTE / PLATE / PLAQUE
17	CM+7.0326.6610.0		SCHEIBE-5,2x11x0,2 / WASHER / RONDELLE
18	CM+7.0326.3020.1		ERDUNGSSCHEIBE 4,3 / EARTHING WASHER / RONDELLE DE MISE A LA TERRE
19	CM+7.0471.7170.0		FLACHSTECKER 1X6,3/0,8 / FLAT PLUG / FICHE PLATE
20	CM+7.0371.8011.0		HAFTSCHELLE / CLIP / COLLIER ADHESIF
<p>Alle mit * gekennzeichneten Ersatzteile sind nicht ab Lager lieferbar. Bei Bestellung verlängerte Lieferzeit. Die mit D... bezeichneten Teile, z.B. D603 sind Normteile. Die Bestellnummern sind der separaten Normteilliste "DD+DIS011.93M" zu entnehmen.</p> <p>Spare parts marked with * are not available from stock. Expect extended delivery times. Part numbers starting with D..., e.g. D603, refer to standardised parts. For order numbers please refer to the separate spare parts list for standardised parts "DD+DIS011.93M".</p> <p>Les pièces différenciées par * ne sont disponibles départ usine. Délai prolongé en cas de commande. Les pièces D... par ex. D603 sont des pièces normalisées. Vous trouvez leurs références dans la liste, á part, des pièces normalisées "DD+DIS011.93M".</p>			
<p>Lampenhalter, Elektronik Lamp holder, electrics Doille de lampe, électronique</p>			



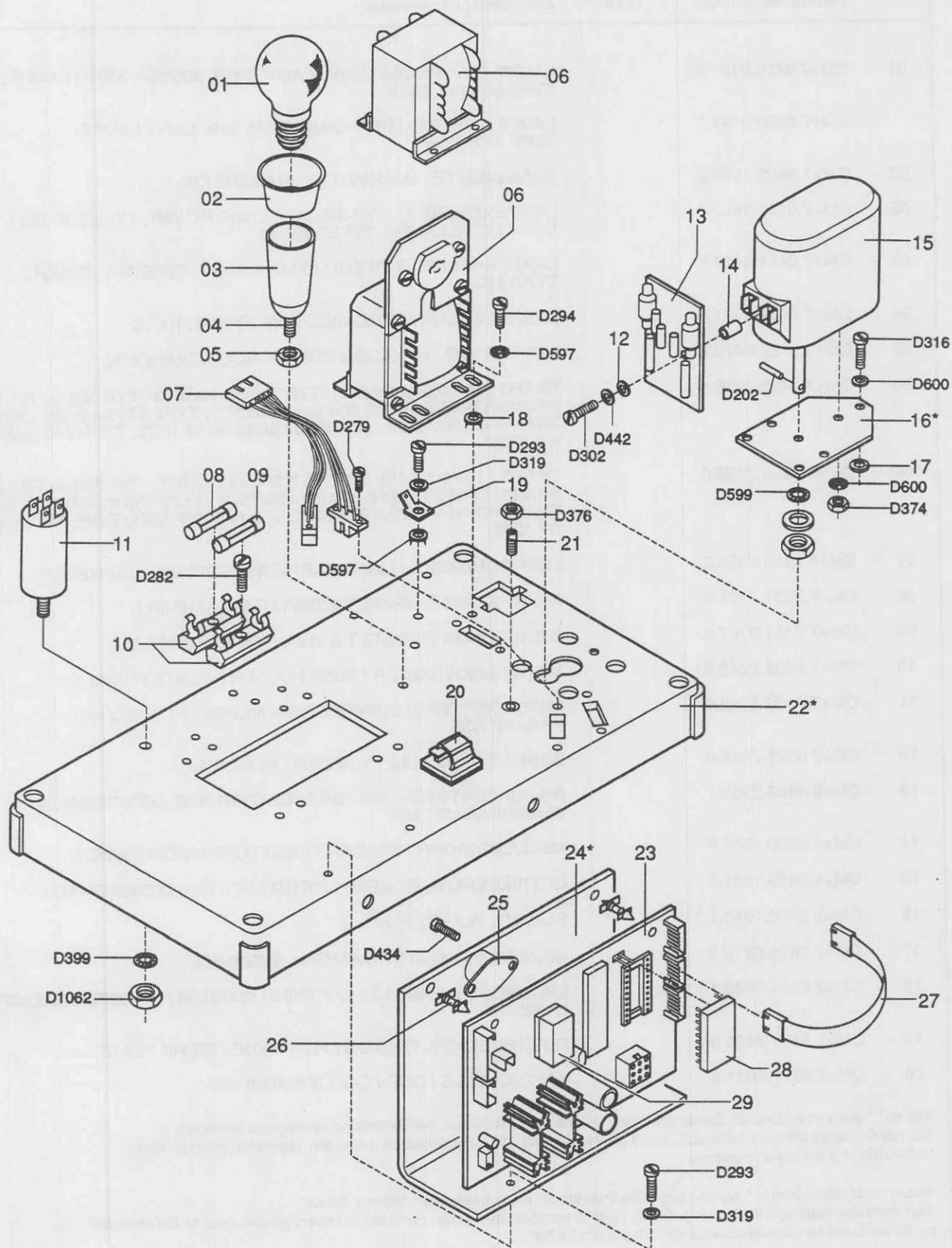
Pos. Nr.	Teil Nr./ Part No./No. de R�f.	ABC- Code	Benennung / Description / D�nomination
01	CM+8.8400.1020.0		GETRIEBEMOTOR / / GEAR MOTOR / MOTEUR D'ENGRENAGE
02	CM+8.8400.1100.1 *		PLATINE / PLATE / PLAQUE
03	CM+8.8400.1250.0		DRUCKSTUECK / PRESSURE BLOCK / PIECE DE PRESSION
04	CM+8.8400.1235.0		KABEL / CABLE / CABLE
05	CM+7.0426.0074.0		MIKRO-SCHALTER / MICROSWITCH / MICRORUPTEUR
06	CM+7.8400.1231.0		UNTERLAGE / BASE / BASE
07	CM+7.8400.1001.0 *		LAGERBLECH / BEARING PLATE / PLAQUE DU PALIER
08	CM+7.8400.1004.0		ZUGFEDER / TENSION SPRING / RESSORT DE TRACTION
09	CM+7.8400.1003.0 *		ACHSE / SHAFT / ARBRE
10	CM+7.8400.1002.2		HEBEL / LEVER / LEVIER
11	CM+7.8400.1232.0		ZUGFEDER / TENSION SPRING / RESSORT DE TRACTION
12	CM+7.8400.1234.0		SINTERLAGER / POROUS BEARING / COUSSINET-FRITTE
13	CM+7.0371.7305.0		TUELLE / SLEEVE / MANCHON
14	CM+7.0371.8019.0		HAFTSCHELLE / CLIP / COLLIER ADHESIF
15	CM+8.8400.1240.2		SCHLITTEN / CARRIAGE / COULISSEAU
16	CM+7.8400.1233.2		SCHENKELFEDER / LEG SPRING / RESSORT A BRANCHES
17	CM+7.0326.6510.0		SCHEIBE-5,1x8x1,2 / WASHER / RONDELLE
18	CM+8.8400.1270.0		KUGELLAGER / BALL BEARING / ROULEMENT A BILLES
19	CM+7.8400.1204.0 *		BEILAGE / WASHER / RONDELLE
20	CM+7.8400.1205.0		ABDICHTUNG / SEAL WELDED / PLAQUE D'ETANCHEITE
21	CM+7.8400.1203.1		BUCHSE / BUSHING / DOUILLE
22	CM+8.8400.1220.0 *		WIPPE / ROCKER / BASCULE
23	CM+7.8400.1201.0		ACHSE / SHAFT / ARBRE
24	CM+7.0326.6510.0		SCHEIBE-5,1x8x1,2 / WASHER / RONDELLE
25	CM+7.8400.1202.0		ACHSE / SHAFT / ARBRE
26	CM+8.8400.1280.0 *		LAGERBLECH / BEARING PLATE / PLAQUE DU PALIER
27	CM+7.0329.4520.0		SCHEIBE-5,1x9,2x0,3 / WASHER / RONDELLE
28	CM+8.8400.1400.2		KURVENSCHLEIBE / CRANK DISK / FLASQUE DE MANIVELLE
29	CM+8.8400.1500.0		STREBE / STAY / ENTRETOISE

Alle mit * gekennzeichneten Ersatzteile sind nicht ab Lager lieferbar. Bei Bestellung verl ngerte Lieferzeit.
Die mit D... bezeichneten Teile, z.B. D603 sind Normteile. Die Bestellnummern sind der separaten Normteilliste "DD+DIS011.93M" zu entnehmen.

Spare parts marked with * are not available from stock. Expect extended delivery times.
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Les pi ces diff renci es par * ne sont disponibles d part usine. D lai prolong  en cas de commande.
Les pi ces D... par ex. D603 sont des pi ces normalis es. Vous trouvez leurs r f rences dans la liste,   part, des pi ces normalis es "DD+DIS011.93M".

Platine mit Wippe
Plate with rocker
Plaque avec bascule



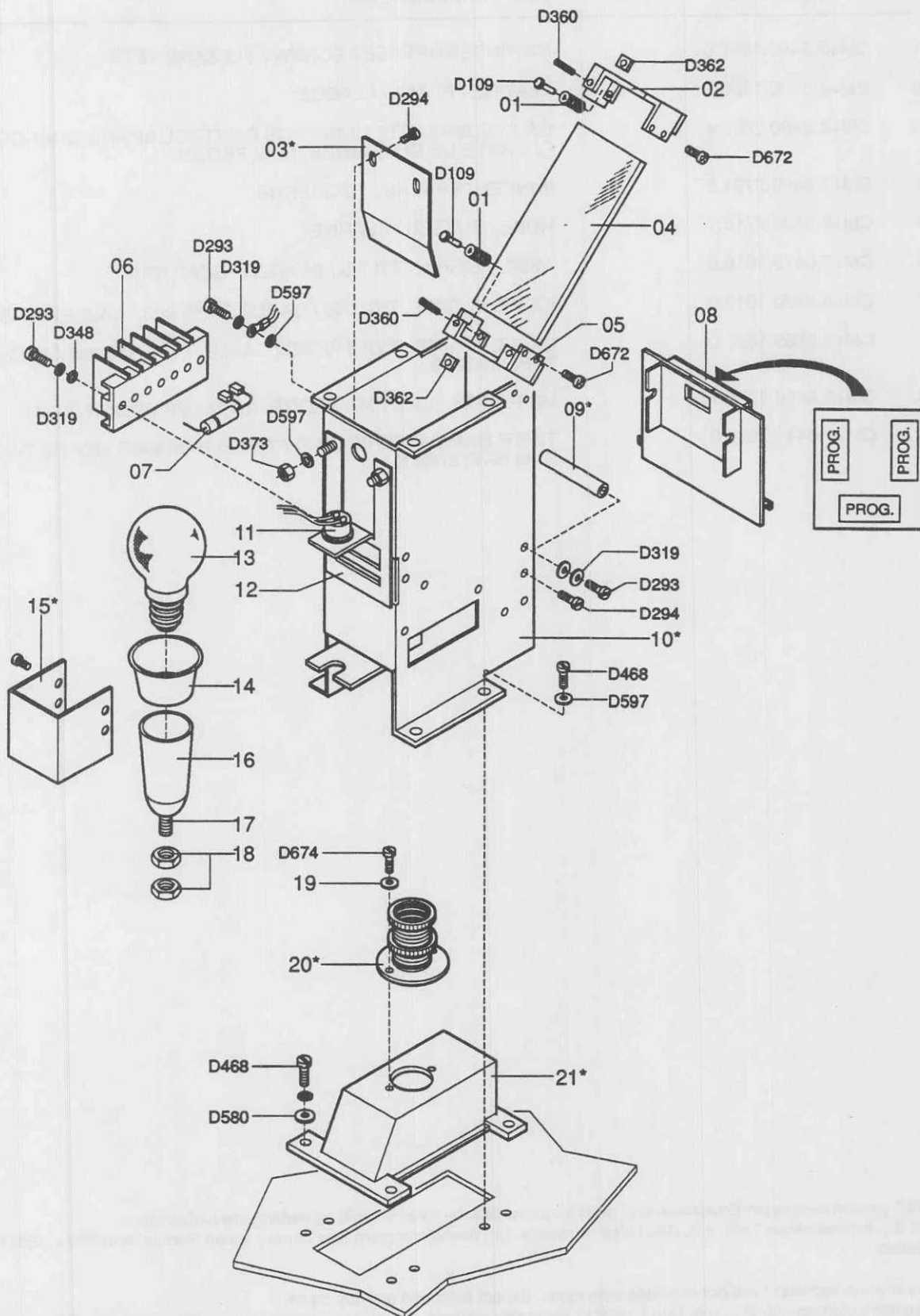
Pos. Nr.	Tell Nr./ Part No./No. de Réf.	ABC- Code	Benennung / Description / Dénomination
21	CM+7.8400.1007.0		GEWINDESTIFT / SET SCREW / VIS SANS TETE
22	CM+8.8400.1100.1 *		PLATINE / PLATE / PLAQUE
23	CM+8.8400.2880.4		GS STEUERKARTE UNPR. / GS CONTROL BOARD, UNPROGR. / CI CARTE DE COMMANDE, NON PROGR.
24	CM+7.8400.2701.3 *		WINKEL / BRACKET / EQUERRE
25	CM+8.8400.2710.1		HUPE / BUZZER / ALARME
26	CM+7.0479.1016.0		ABSTANDSHALTER 9,5 / SPACER / ECARTEUR
27	CM+8.9889.1016.0		KABEL FL 5POL, TYP 300 / CABLE, TYPE 300 / CABLE, TYPE 300
	CM+8.9889.1026.0		KABEL FL 5POL, TYP 340/350 / CABLE, TYPE 340/350 / CABLE, TYPE 340/350
28	CM+8.8400.2936.1		MP PROGR. (IC 1) / MP PROGR. (IC 1) / MP PROGR. (IC 1)
29	CM+7.0441.7030.0		TIMER RAM BATTERIE (IC 7) / TIMER RAM BATTERY (IC 7) / TIMER RAM BATTERIE (IC 7)

Alle mit * gekennzeichneten Ersatzteile sind nicht ab Lager lieferbar. Bei Bestellung verlängerte Lieferzeit.
Die mit D... bezeichneten Teile, z.B. D603 sind Normteile. Die Bestellnummern sind der separaten Normteilliste "DD+DIS011.93M" zu entnehmen.

Spare parts marked with * are not available from stock. Expect extended delivery times.
Part numbers starting with D..., e.g. D603, refer to standardised parts. For order numbers please refer to the separate spare parts list for standardised parts "DD+DIS011.93M".

Les pièces différenciées par * ne sont disponibles départ usine. Délai prolongé en cas de commande.
Les pièces D... par ex. D603 sont des pièces normalisées. Vous trouvez leurs références dans la liste, à part, des pièces normalisées "DD+DIS011.93M".

Lampenhalter, Elektronik
Lamp holder, electronics
Doille de lampe, électronique



Pos. Nr.	Teil Nr./ Part No./No. de Réf.	ABC- Code	Benennung / Description / Dénomination
01	CM+7.8400.1604.0		DRUCKFEDER / COMPRESSION SPRING / RESSORT DE PRESSION
02	CM+7.8400.1608.0		LAGER / BEARING / PALIER
03	CM+7.8400.1601.2 *		BLENDE / COVER / RECOUVREMENT
04	CM+7.8400.1605.1		SPIEGEL / MIRROR / MIROIR
05	CM+7.8400.1603.0		LAGER / BEARING / PALIER
06	CM+7.0472.1133.0		STECKLEISTE 5POL / PIN CONNECTOR STRIP / CONNECTEUR MAL
07	CM+8.8400.2820.1		KONDENSATOR / CAPACITOR / CONDENSATEUR
08	CM+8.8400.1700.3		ANZEIGE INNEN / DISPLAY INSIDE / AFFICHAGE INTERNE
09	CM+7.8400.1606.0 *		ABSTANDSBOLZEN-Rd8-M4x59 / SPACER BOLT / ECARTEUR
10	CM+8.8400.1610.3 *		SPIEGELHALTER / MIRROR HOLDER / SUPPORT MIROIR
11	CM+7.0482.2127.0		TEMPERATUR SCHALTER, 60C / TEMPERATURE SWITCH, 60°C / 60°C INTERRUPTEUR THERMOSTATIQUE
12	CM+7.8400.1602.1		BLENDE / COVER / RECOUVREMENT
13	CM+7.8400.0102.1		LAMPE, TYP 300/350, 230V / LAMP, TYPE 300/350, 230V / LAMPE, TYPE 300/350, 230V
	CM+7.8400.0147.0		LAMPE, TYP 340, 120V / LAMP, TYPE 340, 120V / LAMPE, TYPE 340, 120V
14	CM+7.8400.1609.0		MANSCHETTE / COLLAR / MANCHETTE
15	CM+7.8400.1607.0 *		REFLEKTOR / REFLECTOR / REFLECTEUR
16	CM+7.0451.5482.0		LAMPENFASSUNG, TYP 300/350 / LAMP MOUNT, TYPE 300/350 / DOUILLE DE LAM, TYPE 300/350
	CM+7.0451.5427.0		LAMPENFASSUNG, TYP 340 / LAMP MOUNT, TYPE 340 / DOUILLE DE LAMPE, TYPE 340
17	CM+7.0451.5481.0		GEWINDEROHR, M10X1 / THREADED PIPE / TUBE FILETE
18	CM+7.0451.5479.0		6KT-MUTTER / HEXAGON NUT / ECROU HEXAGONAL
19	CM+7.0325.3700.0		SCHEIBE-3,1x9x0,5 / WASHER / RONDELLE
20	CM+4.8400.9000.0 *		VERGRÖßERUNGSOBJEKTIV 1:8,0 / ENLARGEMENT LENS 1:8,0 / OBJECTIV POUR AGRANDISSEMENT 1:8,0
21	CM+7.8400.1012.0 *		OBJEKTIVTUBUS / LENS TUBE / TUBE D'OBJECTIF

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Spiegelhalter
Mirror holder
Support miroir

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